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ELMWOOD ROAD, LOOKING EAST: DEVELOPMENT WHICH DOES NOT DESTROY THE AMENITIES

VOL. XXXVII. No. 6 25 JANUARY 1930

CIVIC CENTRE

Regional Planning with Special Reference to the Greater London Regional Plan

BY DR. RAYMOND UNWIN [*F.*].

[*A Paper read before the Royal Institute of British Architects on Monday, 6 January* 1930.]

MANY will recall the fascination with which they first realised how the mysterious and beautiful form structure of crystallisation could be induced to spread through a formless solution. Some may remember how the molecules or atoms of a refractory mass might be stimulated by example ; the introduction of a minute crystal of the substance being enough to rouse their traditional love of order ; to cause the most active to 'set to partners, these starting an enthusiasm for their appropriate movements which inevitably, if gradually, spread through the whole mass.

The introduction of the principle of planning into human affairs that have long been allowed to develop haphazard has a similar effect. Once the order of a plan is established over a certain area, the boundary, where order ends and disorder commences, forms a line of nonconformity, stimulating attempts to remove the irritation by spreading the order further and further. Within the short space over which the older generation of us can now look back, we have seen such a change in progress. We remember when buildings were generally considered in isolation. Then one or two examples of intelligent land planning and harmonious relations established between the buildings, as in Bedford Park, were dropped among us like the minute stimulating crystals. Thereafter incongruity between buildings and their surroundings was no longer accepted as inevitable ; a sense of disorder and irritation was aroused. Those who felt the discomfort most keenly, sought to plan larger areas ; and the order spread to more extensive sites, to whole villages, suburbs, and even new towns. Then came the sympathetic statesman, and in 1909 John Burns gave the power to local

authorities to spread this order over those parts of their district "likely to be used for building purposes"; a phrase fairly liberally interpreted. The planning could, however, no more be limited by local government boundaries than by the acreage of a single site. Active authorities began to plan in their neighbour's ground; then they formed groups or regional committees to extend the area; these groups further combined and we have now reached the stage of Greater Regional Planning Committees; and the end is not yet. Across the channel we may see provincial planning; across the Atlantic State and even Inter-State Planning Commissioners are actively at work. To-day, another sympathetic statesman, twenty years after, presides in the place of John Burns over the same Department; Mr. Arthur Greenwood has just said that the term Town Planning Act, having served its purpose, is now out of date; and he has promised extended powers. But planning cannot stop even at the greater region. Already main traffic matters are passing from local to national control; a Commission is sitting to consider the question of National Parks, and planning may be expected ere long to carry its crystalline structure to the natural limits set by the sea shore to our island home!

If the beauty of my crystal order simile tends at this stage to be overshadowed by the apparent rigidity of the mass, I believe the very newest science would come to my rescue, and explain that so far from being rigid, the crystal structure merely defines limits within which the utmost activity of atoms takes place, and would even suggest that the individuals composing the atoms may enjoy something very like free will and initiative. It will be safer, however, to abandon an analogy becoming embarrassing to traditional ideas, and to explain at once that the extension of the principle of planning to wider areas in no sense promotes rigidity, checks initiative, or curtails real freedom. The substitution in the crowd before the booking office window of a queue for a crush, so far from destroying any real freedom, greatly facilitates the satisfaction of the wish of each to obtain a ticket.

The site or regional plan, like the queue, greatly adds to the sum of effective liberty by defining the limits and protecting the sphere within which each can move without being obstructed by others; and by bringing that sphere into appropriate relation with the many others with which each must have dealings. This general principle must be kept in mind, for it determines the legitimate limits of planning, as well as the proper relations between the several authorities who must undertake the work as its advantages spread to wider areas. If the site plan, having secured to the individual plot-holder space, prospect, and harmonious relations with the surrounding environment, needlessly restricts the initiative of the owner in detail of plan or design, then it has exceeded its proper function. In like manner the town plan, while securing harmony of surroundings and convenience of communications for each site, should leave plenty of scope for the exercise of freedom in site planning for which these larger advantages have afforded opportunities. If Regional Planning is to serve its proper purpose, that, too, must be made effective for solving the larger problems of distribution and intercommunication, without depriving the present Town Planning Authorities of the opportunity to plan their areas, or restricting their freedom to do so in accordance with local wishes, provided they respect the framework of the regional scheme.

One main reason which justifies the Minister in speaking of the Town Planning Act as growing out of-date, is that it does not give reasonable opportunities for regional planning, or adequate facilities for site planning. At present Regional Committees must be content to give advice only, or they must take over from their constituent local authorities the complete making of their schemes. The first alternative is ineffective, and must remain so because regional proposals will often be as much outside the province as they are beyond the financial resources of the individual local authorities. The second unduly deprives the local authorities of their proper freedom to plan their own district, and throws on the regional authority a mass of detail planning not easily to be coped with. Regional Planning Schemes should be made effective, therefore, without depriving the local authorities within the region of their freedom to make Town Planning Schemes for their areas. These schemes should in turn leave ample opportunity for more detailed site plans to be made from time to time, either by the planning authority or by owners or groups of owners. These facilities to make development or redevelopment schemes will be specially needed in connection with the

redevelopment of areas already built upon. The application of town planning to these areas is certainly essential to complete the substitution of planning for haphazard development.

A better example of the need for such planning could hardly be found than is furnished by the controversy about the Charing Cross Bridge. Every detailed aspect of the problem seems to have been discussed in isolation from the whole, the interest of the railway company, the navigation of the river, the connection of the approaches, the form of the bridge, and even the creation of terminal features; but no master plan for the district affected has been forthcoming. Such plan alone could bring these and many other seemingly conflicting views and interests into some coherent relation and proportion to each other. The importance to the area affected, near the geographical centre of this great city, cannot easily be exaggerated. The district is one ripe for redevelopment. Only such a plan can authoritatively set at rest the serious doubt whether the scheme is really the first piece of a fine new garment, or merely another patch on the seat of an old one. Without some master plan for the great urban regions, it is impossible to view each problem as it arises in true perspective, or to see its proper relation to the whole.

The extension of planning to the greater region, while it implies less preoccupation with buildings, streets, and other details of development, and involves the consideration of many new factors, nevertheless calls for little change in the main principles of design. Our buildings must fulfil the needs of their occupants, and conform to the science of building construction. The art of architecture is conditioned by these necessities. Rapid changes in either the use or the science may have a disturbing influence on traditional forms of expression, as we are realising! For town and regional planning there is emerging also a science of urban and rural development to which good designs must conform. This science, still so little known, is being disturbed no less by rapid changes of use and knowledge.

In each sphere like principles of design must be followed. Imagination must be applied first to appreciate, and then to create, those special values, whether of use or of beauty, which arise from bringing the various parts into right relations and proportions one to the other. In this way is unity of design given to the larger whole. The principle applies to parts of a pattern traced on a flat background; to the grouping of walls, roofs and windows into a façade; to the disposition of buildings and openings around a civic centre, or to the laying down of a pattern for distributing urban development over the undulating background of hill and dale, field and forest, forming the region.

PATTERN DESIGNED ON PLAIN BACKGROUND, FROM THE FORUM, ROME

ELEVATION: COMPILED, NOT DESIGNED

The main purpose of the plan is to secure the best distribution of the dwellings, the work and the play places of the people. The method should be to lay out this distribution in a convenient pattern on a protected background of open land. Only in this way can a right relation or good proportion be maintained between the developed areas and the open land. Here another serious obstacle to proper regional planning must be recognised. For no such secure background as this method of design presupposes is in fact available! All land is potentially building land, and the poor planner has to fall back on scraps of background, in the shape of open spaces, such as he can see some hope of purchasing. He must perforce be content with these oases in a limitless desert of potential building sites!

Nothing is more essential for good regional planning than power to secure an adequate background of open land. So long as anybody may build anywhere, and no effective power to control the distribution of building development exists, the evils of sporadic building and ribbon development will continue, in spite of anything we and the Council for the Preservation of Rural England may say or do. Under Town Planning Schemes reasonable regulations can be made as to what class of building may be erected in each area, and as to the height and character of the buildings, without incurring liability for compensation. Any attempt, however, to determine where building may best be located, and where the background of open space should be preserved, involves a liability for compensation which no planning authority will face.

Regional planning in selecting the best areas for building development, and thus preventing sporadic building from spoiling the amenities of the land and entailing useless costs for services of all kinds, seeks to do for the lands of many owners that which any sane single owner would do in his own interests. The reservation of adequate background of open land, so far from diminishing the total value or the building increment, is likely to increase it. That the planning authority should be liable for compensation because the plan allocates where this increment may be realised, and where not, without diminishing its amount, is clearly unreasonable. The single owner will realise that by allocating building on certain lands and reserving others from such use, he will increase the value of the former and diminish that of the latter, but that on balance he loses nothing, and stands rather to gain by the added attractiveness and value of the estate, which his planning has produced. So also, when there are many owners, regional planning will not reduce the total value, but it may distribute differently the

SIMPLE ELEVATION. Designed by the late Percy B. Houfton

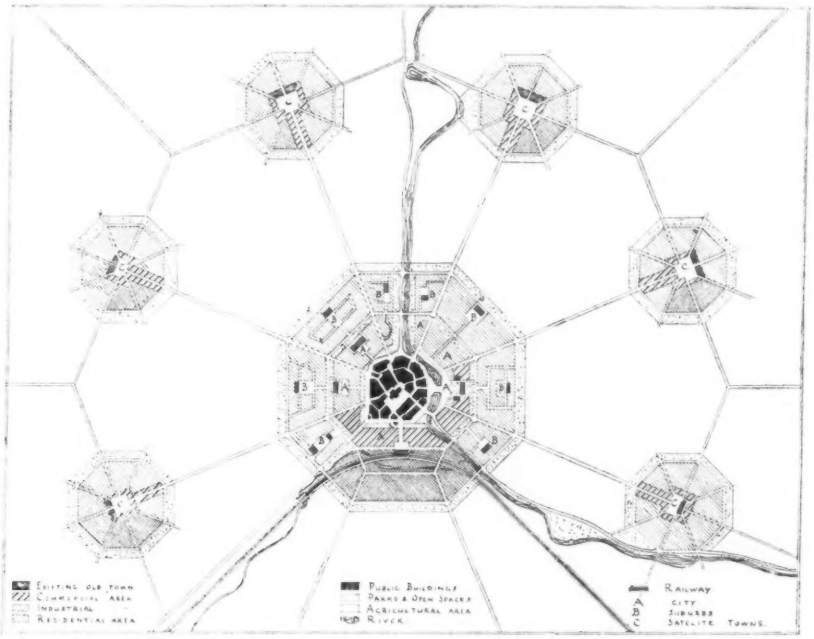
prospect of reaping building increment. This is a matter for adjustment between the owners who gain and those who lose by the new distribution. It is essential to good regional planning that this principle should be recognised and that practical means, fair alike to the owners and to the planning authorities, should be devised for giving effect to it. No doubt there are many other amendments to the Town Planning Act which would be very valuable ; but to technical men seeking to apply the right principles of planning and design to the use of land and its development for building, those which have been referred to seem the most important. They are :—

1. Regional planning must be made effective without depriving the local planning authorities of the right to make schemes for their districts within the regional framework.

2. Greater facility must be given in the Local Planning Schemes and in Regional Schemes also, for securing good site planning as land becomes ripe, for development or redevelopment.

3. Planning schemes should be made applicable to all land, whether built upon or not.

4. The present powers of zoning areas for different classes of building should be extended to permit the reasonable allocation of areas for building development and the reservation of other areas from such use, without compensation from the planning authority, but with power to adjust between owners any gain or loss of building prospect resulting.



BUILDING AREAS PLANNED ON BACKGROUND OF OPEN LAND

The preliminary study of the difficult task set before the Greater London Regional Planning Committee by the Minister of Health shows that only on the basis of powers such as those sketched can the work be adequately accomplished. That Committee is composed of representatives of the City of London, of the County and County Borough Councils, and, indirectly, through the various Regional Committees, of the other local authorities within the area having town planning powers. The district is that of the London and Home Counties Traffic Advisory Committee ; it con-

tains 1,846 square miles, and is approximately represented by a circle 50 miles in diameter. The population approaches 9 millions ; a number so vast that to provide for its natural increase and outward movement, involves annual developments equivalent in scale to a large town. The population of the County of London has been diminishing since the Census of 1901. Since then, the whole

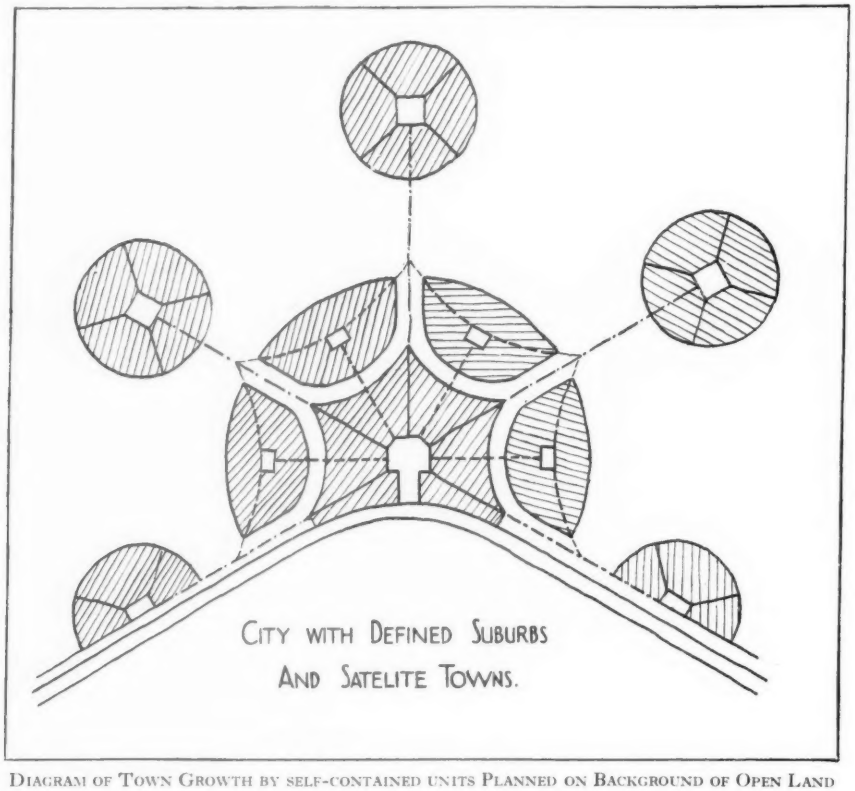


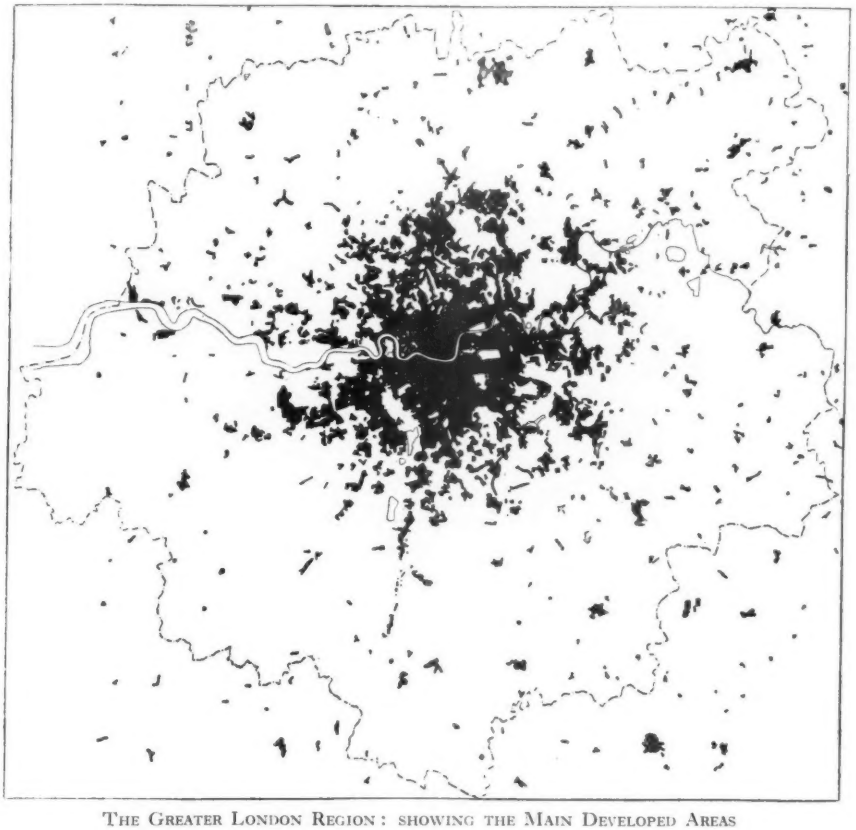
DIAGRAM OF TOWN GROWTH BY SELF-CONTAINED UNITS PLANNED ON BACKGROUND OF OPEN LAND

of its natural increase, due to excess of births over deaths, has been migrating outwards, plus the number representing the reduction. This population flowing outwards has mainly settled within the Greater London region ; although in the decade preceding 1921 the whole of it was not retained there, and there was a balance of migration out of the Region amounting to about 35,000 annually. The estimates of the Census Authorities since 1921 show a turn of the tide in the outer region, and in addition to absorbing its own natural increase of about 56,000 per annum, Greater London has received on balance an immigration from outside of something like 10,000 annually. This change of flow is perhaps explained by the movement of industries into certain sections, to which attention was recently drawn by the Chief Factory Inspector. In spite of the good effected by Regional Planning Committees and Town Planning Schemes, and mainly owing to the want of power to locate development, this wide stream of population spreading over the Region, from the congested centre, and now also from outside, has settled haphazard, without any co-ordinating design. It has caused the outstanding example of sporadic building.

The rapid growth of motor transport removed the limitation previously set by the need to be within reasonable distance of a railway station. Any part of the Region is now accessible for those who

drive a motor car ; and patches of sporadic building are breaking out all over the Region, which damage the amenities over areas of land, out of all proportion to that which is actually used for building purposes. Such development will also involve serious difficulty and expense in regard to the provision of sewerage and other services.

any increase in population which may reasonably be expected, still leaving the greater part of the area as open land. Provision could be made in generous measure for playing fields, parks, pleasure grounds, wild country reserves, allotments, or aerodromes, and for the many other purposes for which an urban population needs open land.



THE GREATER LONDON REGION : SHOWING THE MAIN DEVELOPED AREAS

The outward movement itself is not the evil. On the contrary it must be encouraged, unless the congestion of traffic in the centre is to become still more intolerable. Nor does the area of land required to give generous accommodation for this population, raise a difficulty. If development were guided into reasonably self-contained nuclei, forming attractive urban groups of different sizes, spaced out on an adequate background of open land, there would be ample space in the Region for

The science of urban development on which planning for the distribution of this great population must be based, though far from complete, is too extensive to permit more than one or two items to be referred to by way of example.

For locating industry, determining factors are economical transportation, ready access to a sufficient supply of labour, and facility both for receiving raw materials and for distributing the finished products, whether they are consumed

locally, in other parts of the country, or in foreign lands. The recent extensive development of industry in the area to the north-west of London is largely due to the coming of motor transport. From that district, while the London market remains easily accessible, practically the whole of the home market lying to the north and west can be reached without the delay of crossing London itself. Better bye-pass communications, such as the North Orbital Road, will probably tend to restore the balance of advantages in favour of the east-end and riverside sites for many types of industry. Other factors help to determine industrial areas, and much further study is needed in regard to them.

If productive industry may be regarded as the economic foundation of the social structure, commerce naturally follows. The expansion of commerce in the central area is the compelling force, supplementing a widespread desire on the part of many town dwellers to live in less congested and more rural surroundings; as such it is largely responsible for the great exodus to the outskirts. Two considerations dependent on a general plan may be mentioned, neither of which has received enough attention. The continued efficiency of a great organisation like the City of London requires that the most important operations, on which the welfare of the City and of the Empire depends, should be provided for in an area where they are not constantly hindered by crowds engaged in unimportant details, such as the purchase of gramaphone records, or the passing to and fro from the hatter to the tailor. Such confusion in and about the board room, the manager's office, or the quarters of the general staff, would not be tolerated in any other organisation.

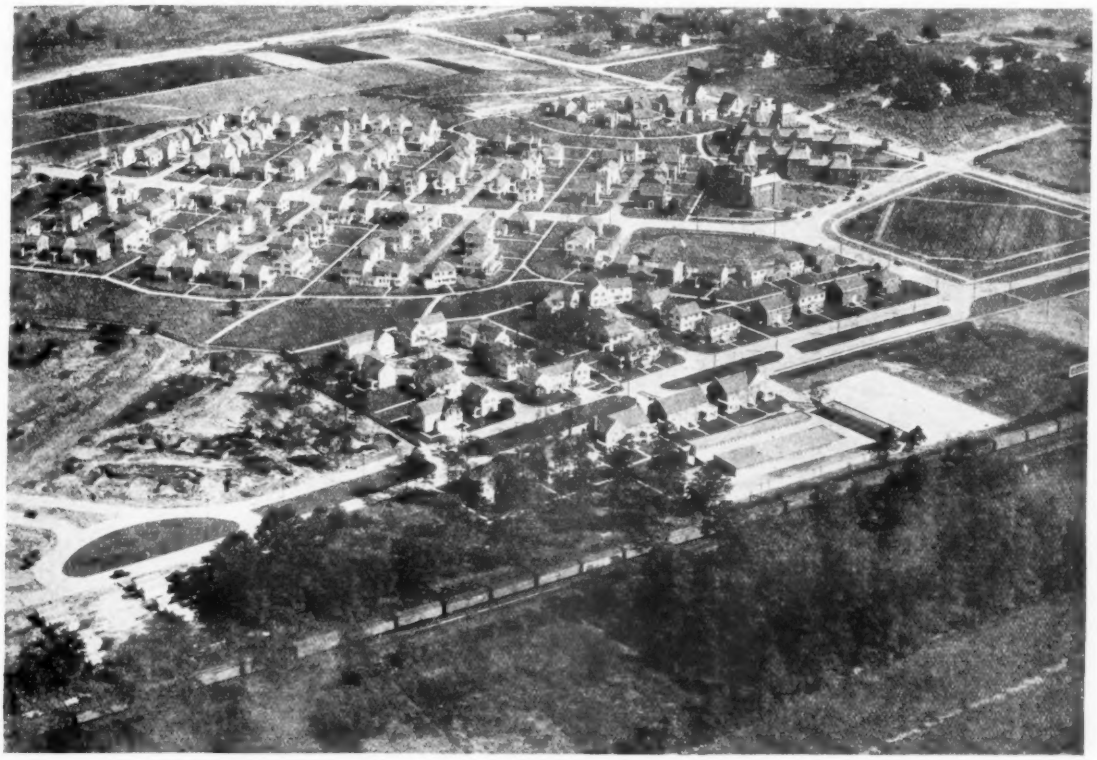
The second consideration arising from the growing size of London's business centre is the reservation in immediate connection with that centre, of certain carefully selected and adequately protected residential areas, to accommodate comfortably the selected staffs which should be within call in connection with great enterprises. Planning of the built up areas can alone bring into play these principles of redistribution in reference to central functions. Large commercial and retail trade organisations are showing a tendency to maintain only the essential central functions in the congested areas; and to decentralise such departments as the storage of records, or the conduct of routine business, which can function as well or better outside. These tendencies deserve encouragement from the city planner.

The location of population moving to the outskirts can be arranged in accordance with like knowledge of their needs. Much is required in addition to the dwellings themselves. Shops from which to obtain their daily supplies, schools for the children, and places of amusement or worship are examples. The requirements of populations enjoying different standards of living, and the economical units for supplying them, are ascertainable within limits where judgment can reasonably be exercised. In rural districts about one shop for every 50 persons is the average proportion. In the large towns one for every 100 persons would be nearer, the average size of the shop being sufficiently larger to outbalance the increased degree to which town dwellers frequent shops. Average figures indicate that while one grocer's shop per 1,000 of the population may flourish, a furniture dealer may need 3,000. A musical instrument seller, or a dealer in sports articles, on the other hand, may hardly find sufficient customers among less than 10,000 or 15,000 people. Investigations in the New York Region have given an average figure of 50 feet of shop frontage for every 100 of the population. This would mean on the rural basis referred to above, 25 feet per shop, a remarkably reasonable figure, considering the difference between English rural and American urban conditions.

A number of such considerations suggests that units of from 4,000 to 6,000 people are sufficient to support a fair local shopping market for the supply of daily needs. Three such units, so combined that they could make use of one shopping centre, would be sufficient to support a very complete equipment of retail traders, and to add new possibilities for the maintenance of an adequate local recreation centre, institute, theatre or what not.

A reasonable proportion of open land for playing fields and pleasure grounds should be reserved in connection with each unit of urbanised population. To provide adequately for those who wish to play open-air games of all kinds in an urban area, there should be provided 7 acres of land for every 1,000 of the inhabitants. This would represent a need of from 28 acres for a 4,000 unit of population to 105 acres for a 15,000 unit. Experience further indicates that about one tenth of urbanised areas

should be available for public open spaces for the enjoyment of open air life. As confirming this estimate, it is interesting to find that about double this proportionate area is already in use at Letchworth, where availability and ease of access are at their maximum. For the Greater London Region, suitable for residential development, may afford good playing fields and belts of open land. If, however, belts of open space are required for the purpose of dividing or isolating residential units, even wide valley belts will be less effective than strips running along the ridges. The preservation



RADBURN, NEAR NEW YORK. A TOWN PLANNED FOR THE MOTOR AGE

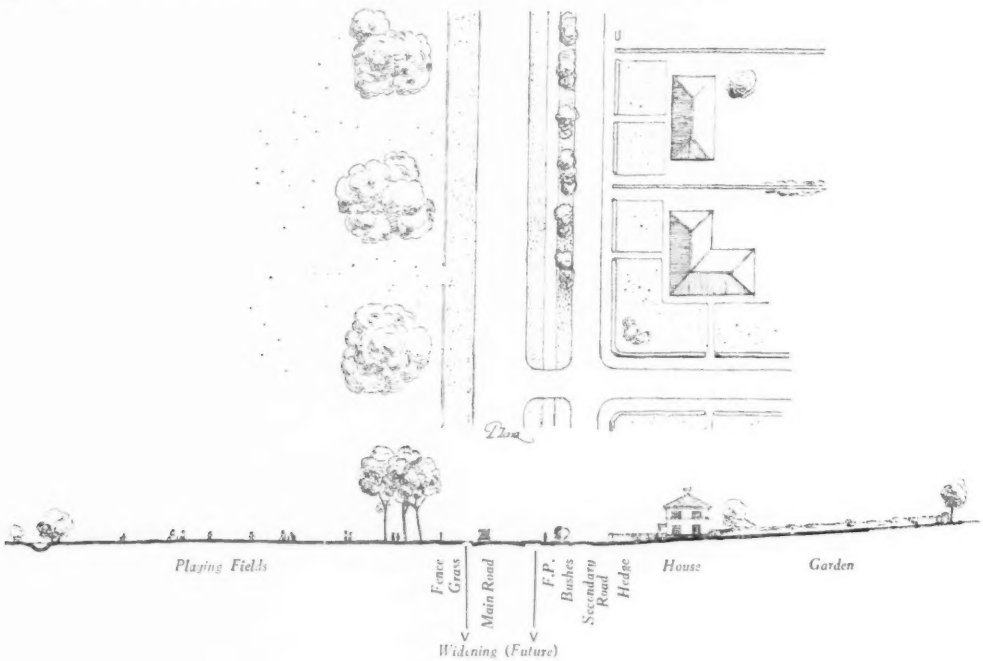
this standard indicates a present need for about 200 square miles of open space and playing field.

As regards amenity, provided that the surrounding area can be protected from sporadic development, compact units of population of 4,000 to 6,000 people, and well designed groups of such units, can remain so nearly in touch with open country as to secure many of the advantages of country life. The selection of southern slopes which afford the best sites for such residential units would keep the northern slopes free to afford a rural prospect. Valleys and flat meadows less of the sky line is more effective to secure rural outline to a view, than the preservation of much wider lands in the hollow.

That the better distribution of industry and population may result in the reduction of traffic congestion, the units of population should be made as self-contained as possible. While the best means of intercommunication for necessary movements is desirable, the congestion of this useful traffic by large volumes of that which is due to the bad placing or faulty relations of the different parts, is thoroughly harmful. The

growth of motor transport which has extended the possible range for sporadic development, has also changed the character of traffic problems. To meet this, new types of road and methods of road planning are now needed. The outcry against ribbon development has laid stress on the destruction of amenity. Destruction of life, and obstruction of through traffic are equally serious results of unsuitable development on main road frontages. The motor car has rendered impossible the joint use of highways for traffic and for building frontage.

development should take place in compact units from which convenient access to the highway is arranged, but which are set back from it, and so planned that local intercommunication can take place with the minimum need for crossing the main highway. The North Orbital Road, which is likely to be one of the next to be put in hand, affords a good opportunity for demonstrating these principles, which are as essential for safety, economy, and efficiency, as they are for the preservation of amenity.

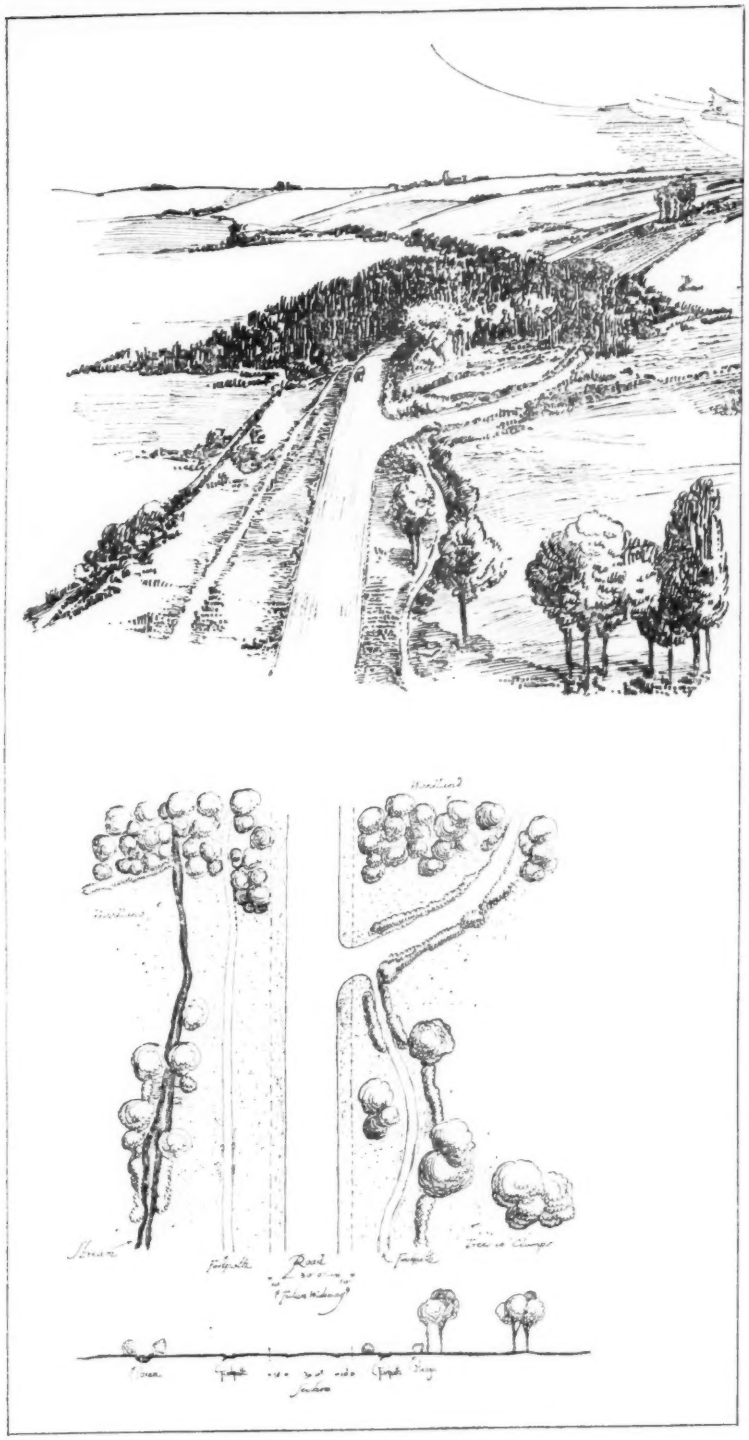


CROSS SECTION

Highways, in future, should be kept free from the obstruction and danger caused by numerous branch roads, or carriage drives, and by turning, standing, and crossing vehicles. The safety of the inhabitants must be provided for by arranging service roads and footpaths giving access from the dwellings to shopping centres, schools or other resorts, and reducing to a minimum the need to cross main highways. This principle is now so clear, that general effect should be given to it. No frontage development should be permitted on highways in future, without the provision of subsidiary service roads. As far as possible

The few items referred to must suffice as examples only of a wide range of facts and relations forming the science of urban development. It is these and many similar considerations which must determine the main lines of distribution. The art of planning consists in bringing them all into such appropriate relations and good proportions that a coherent whole will be created, and will combine the many developments into a design on the background of open land, harmonising with the nature of the site. Thus there may be given at least the opportunity for a beautiful environment, out of which a good human life may grow.

(*Discussion overleaf on page* 194.)



PARKWAY TREATMENT OF HIGHWAY

Discussion

MR. HENRY V. ASHLEY (VICE-PRESIDENT) IN THE CHAIR.

Sir EDGAR BONHAM CARTER, in proposing the vote of thanks to Dr. Unwin, said: There is, perhaps, no subject which is of so much importance to Londoners as the regional town planning of London. It is a problem which effects every Londoner most intimately and closely. If, for instance, he lives in Park Street at the back of Park Lane, the outlook from his house may at any time, owing to the want of town planning regulations, be blocked by the erection opposite on that 40-foot street of a building 80 feet in height with the additional height of the roof: if he wishes to get to these offices in Conduit Street to attend a meeting of the Institute, or upon the invitation of your Council to eat an excellent dinner, he finds the difficulties of the traffic are so great that he is likely to arrive late; if he works at Slough, he will find large numbers of factories but no house in which to live: if, on the other hand, he lives at Becontree on the admirable housing estate, which has been built by the London County Council, he will find large numbers of houses but few factories in which to work.

Most of us probably knew, even before hearing Dr. Unwin's address, that under the existing law the town planning of London will not turn out satisfactorily: that the results will be disappointing. But the general public are not aware of the fact. Dr. Unwin has given us this evening an authoritative statement that the existing town planning powers and machinery are inadequate. That statement is specially important because it is authoritative. Coming from him, it must draw the attention of the public to the subject, and will, one may hope, lead to its receiving the attention it deserves.

Dr. Unwin has not only told us that the existing town planning powers are inadequate, he has made valuable constructive suggestions as to how they should be made adequate.

He has told us that if the town planning in London is to be a success, it is necessary in the first place that the plans of the Regional Town Planning Authorities should be made effective. He might, I think, have added that it is also necessary to consider whether some of the minor Town Planning Authorities of Greater London are the right authorities to exercise town planning powers.

Secondly, he has suggested that Town Planning Authorities should be empowered to allocate areas for building development, and reserve other areas from such use without compensation; and he has clearly pointed out the great injustice of the present law of compensation to Local Authorities who, if they reserve an area from building, have to pay compensation for the building value, whereas they do not get the building value; it is transferred to another land owner. That is a great injustice and we must hope that Parliament will remedy this injustice. The injustice is so flagrant that anyone who understands the position—I admit it is somewhat difficult—will clearly see that the Local Authority is paying for something which it does not get. It is true that the owner who is compensated may be losing building value: but some other land owners are getting the benefit which is being paid for by the Local Authority. The right remedy is that suggested by Dr. Unwin, namely, that the other land owners should arrange to compensate the land owner who is being deprived. Thirdly, Dr. Unwin has told us—this is not new, but it has got to be repeated again and again until the law is amended—that town planning powers must be made applicable to all land, whether it is built on or not.

Dr. Unwin has made other suggestions in the course of his address, but I believe that the three which I have mentioned are the most important. I hope he will carry them further, and will work them out in more detail. I do not think that he should have much difficulty in doing so. One has only to cross the sea to find that in other countries many town planning powers are in force which we have not yet got in London. I have served much of my time in a rather distant province, in a not very progressive country, Turkey, and there I found that no one could start a town or any building development without the consent of the Local Authority. That is rather surprising to us, perhaps, but it is good sense. For is not land development a matter of partnership—at any rate, as we do it in this country—between the Local Authority and the land owner? Is it reasonable that a land owner should be allowed to develop his land where he likes, when he likes, and how he likes, regardless of the fact that such development may deteriorate the property of other landowners, and imposes heavy financial liabilities on the Local Authorities. If, as I suggest, land development under modern conditions necessarily imposes liabilities on the Local Authorities, it is reasonable that they should have some voice in determining where and when it should be allowed. That is the view which is taken in many countries abroad. I have instanced Turkey: it is true also in parts of Germany and in South Africa.

Colonel C. H. BRESSEY, C.B.E. (Chief Engineer, Ministry of Transport), in seconding the vote of thanks, said: In the earlier passages of his very stimulating paper, Dr. Raymond Unwin invokes first principles—the process of crystallisation, the activities of molecules and other phenomena with which we are all expected like Macaulay's schoolboy to be familiar; then somewhat to my disappointment he parachutes down from these lofty heights to such mundane and controversial matters as the Charing Cross Bridge which I am precluded, by my official position, from discussing. Turning from these dangerous topics, let me hark back to first principles and raise the fundamental question which dictates the form assumed by all suburban development, namely, cooking. Rightly considered every suburb is a cluster of individual homes, and every home viewed from a material standpoint is a weatherproof shelter for a cooking range.

Now let us picture dispassionately what happened this morning between 6 and 8 o'clock. Five million of our country women stood in front of five million cooking ranges, each frying 4 or 5 rashers of bacon (I say nothing

of poached eggs at their present price). The aggregate heat and labour lavished on this operation would be sufficient to cook all the pigs in the United Kingdom. On bright Sunday mornings like yesterday, when people should be sunning themselves on their way to church, the same five million devoted women were each busily engaged in cooking either small sirloins of beef or half legs of mutton—far too small to yield good results either economic or culinary.

The assumption that underlies this deplorable waste of energy, namely, that every household must necessarily have its own stove and do its own cooking is a survival of barbarism. A few centuries ago, every house had to possess its own well, its own cesspool, its own brewhouse, its own wash-house, even its own spinning wheel, but thanks to the growth of the co-operative spirit which is the basis of civilisation, we have learned to dispense with nearly all this domestic paraphernalia. The last enemy to be overcome is the cooking range, which enables and encourages our fellow-countrymen to indulge their depraved lust for ribbon development along our beautiful new arterial roads. Just as, according to Napoleon, armies march on their stomachs, so does ribbon development crawl forward on cooking ranges.

Let the five million women have the pluck to say " we are not all of us good cooks and we refuse to waste time in frying single rashers of bacon, when a central cook-house could fry them wholesale, more efficiently, more cheaply and with a hundredth part of the labour." Such a declaration would sound the death-knell of ribbon development. Our dwellings would thenceforth have to be tidily grouped in charming cloisters round a central green with a common dining-room and cook-house as the principal feature of the longer side of the quadrangle. A hot water circulating system would radiate from the cook-house through all the dwellings.

English citizens would then have the choice of a dozen joints on Sunday instead of being restricted to beef or mutton on alternate Sundays. Cold mutton would cease to be the staple dish on weekdays. Thanks to better cooking, we should become an A1 race capable of striking terror into undersized foreigners like Carnera.

Four hundred years ago, one of the greatest of all Englishmen, Sir Thomas More, had a glorious vision of collective cooking as the only reasonable method of nutrition. Listen to his description of housekeeping in Utopia: " Moreover every street hath certain great large halls set in equal distance one from another, everyone known by a several name ——. And to everyone of the same halls be appointed 30 families, on either side 15. The stewards of every hall at a certain hour come into the meat markets where they receive meat according to the number of their halls. To these halls at the set hours of dinner and supper cometh all the whole ward warned by the noise of a brazen trumpet . . . It were a folly for citizens to take the pain to dress a bad dinner at home when they may be welcome to good and fine fare so nigh hand at the halls, where no supper is passed without music."

I hope that when next Dr. Raymond Unwin addresses us on the subject of which he is an acknowledged master, he will collaborate with a Mistress of Domestic Economy and entitle his lecture " Cookery, the Key to Town Planning."

The CHAIRMAN: The subject is now open for general discussion. As it is now getting late, I must ask subsequent speakers to restrict their remarks to five minutes.

Mr. C. R. ASHBEE [*F.*] (Late Civil Adviser to the Military and Civil Administrations in Palestine): I have had the privilege of reading Dr. Unwin's address beforehand, and he also allowed me to see the recommendations which he put up to the Government from his Regional Town Planning Committee. I have studied the paper with great care. I should accept all the " general principles of planning " laid down by him, though I would wish to make one reservation, which I think he will probably agree to. It refers to what he calls the " background of open land "; this must be preliminarily considered from the point of view of history and æsthetics, *e.g.*, if we have two areas of open background land, the one agricultural, the other having historic or æsthetic interest, the latter must take precedence. Questions primarily of engineering, of finance, of commerce, of politics, are important and have their place, but unless we, as town or regional planners, get the historic and the æsthetic issues right to begin with, our regional plan will fail. It will, I think, always be found that when they are got right at the outset, the other things fall in to place, and this is necessarily so because what is vital in good planning has its origin in national history and our sense of beauty, enshrined as both are in the countryside and its landscape.

Sir THEODORE CHAMBERS, K.B.E.: I think that Colonel Bressey underlined the essential trouble of this whole question, namely, the delimitation of the spheres of individualism and collectivism. It is in trying to delimit these spheres to-day that nine-tenths of our difficulties arise. This country is intensely individualistic. It is not going to put up easily with Mussolini methods. It has got to devise, in keeping with that intrinsic character which has permeated the country for centuries, a machinery which, as far as possible, by common consent, delimits collectivism and individualism, and works out, in the process of town planning, that which is to the ultimate benefit of the community. It seems to me that the greatest difficulty we are up against to-day in town planning areas not yet built upon, and still more so in the replanning of built-up areas, is, that we are faced with a haphazard division of land between owners. Little bits of land belong to different people, land of curious shapes and curious lay-out and relationship to their environment. These conditions are incompatible with the best development of the interests concerned.

All architects and builders are battling with this problem and many are working on sites unsuitable for buildings for particular purposes. They are having to mutilate their designs and get the best result they can in the difficult circumstances of the case. If they could remove these artificial barriers between sites they could set about their work in a quite different way. Dr. Unwin, in his paper, has made suggestions of methods by which a rearrangement of boundaries and the pooling of areas might be brought about by common consent. In my opinion

it is along these lines that lies the secret of success in town planning.

Mr. T. ALWYN LLOYD [*F.*]: I was particularly pleased to hear Dr. Unwin lay emphasis on the need for vision, because it is in vision that most town planning is lacking. We meet people who say, "In spite of your town planning we still have ribbon development and various kinds of sporadic building; these things have not been prevented by town planning legislation." It is largely because there has been this lack of vision as regards design and in the scheme of things. With few exceptions town planning has consisted of road schemes and of very little else. The parkway seems to me to be the main solution of the ribbon development problem. Dr. Unwin has given us some admirable solutions of our problems to-night.

Mr. EWART G. CULPIN (Greater London Regional Planning Committee): We have not determined how, when the Greater London Regional Planning scheme is evolved, we shall carry it out. It is not even in the same category as the East and West Kent schemes, where, at any rate, you have one controlling authority in the County Council. In the London Regional scheme you have a vast area, in connection with which, as Dr. Unwin has shown, we have innumerable local authorities to deal with. The question is how, from a political point of view, we shall get them all of the same mind to carry out the scheme. It is mixed up with too many difficulties to put before this meeting on this occasion and at this hour, but sooner or later that will have to be faced. I know the difficulties and the differences which exist between the inner and the outer regions of this vast area; and how we shall reconcile the differences which arise it is difficult to see. The differences are only natural, but they will exist and jealousies will be continued until the whole problem is thoroughly explored and properly understood in its bearing both upon London itself and the remotest village. We shall not overcome troubles by ignoring them, and one of the best things which could happen for the Regional Committee would be for Dr. Unwin to give this lecture to the members to enable them to understand the problem as he has put it before us to-night. If that were done, I am as sure as I can be that the way would be cleared of many of the difficulties. It is because we can only meet together at best at casual times, when the agenda paper for the meetings is so full, that we have been unable to face the problem properly.

I fear it is due to the lack of knowledge on the part of the members themselves that the scheme does not make better progress. The members are not to blame: the problem is so great and so many-sided that busy people cannot get down to every phase of it. I hope all of them will be able to read the paper which Dr. Unwin has prepared and has read to us to-night, and if accompanying the paper there could be given some of the illustrations which he has shown, it will make for real progress in this matter.

Mr. MONTAGU HARRIS (Secretary, Greater London Regional Planning Committee): Sometimes one hears people asking "What has the Greater London Regional Planning Committee done?" And some add, "It has been in existence two years." Well, considering the vastness of the task with which it is faced, that question, I think, need hardly be asked. It, of course, takes a long time for such a body really to get to work. I am able to say, however, that the first Report of the Committee will be in the hands of the public in a few weeks; it has been settled by the Committee, and it is now only a matter of getting the printing and the publishing done. I hope every one here will soon procure a copy at the reasonable price of five shillings. In that Report you will be able to learn what the Committee has done up to the present.

Another question I might refer to is the name and scope of the Committee. It is asked, "Why 'Greater London'?" As Dr. Unwin explained, and as the Minister of Health has himself said, town planning has had to be extended to Regional planning. And Regional planning has been more and more extended in recent years throughout England. So the question arises, What is a region? In this case we did not delimit. We chose a region which had been marked out already by statute. If some people dislike the term "Greater London" as applied to the area, which is well outside the County of London, we had to find some convenient term for the purpose, and we have made use of it. If we consider what is obviously the first subject with which the Committee is concerned, the question of regional open spaces and green belts, it seems that the area is particularly appropriate, because, as you will learn from the Report of the Committee, this area seems to lend itself to the possibility of reserving green belts round London. I cannot go into that now, partly because the Report is not yet published and also I am limited this evening to time. But it is a point which is well worthy of consideration.

We come to the further point which has been referred to by Mr. Culpin, and that is the difficulty of getting a large number of authorities to agree upon any scheme whatever. It is in this case particularly difficult. Here we have 140 different authorities, one of them of so outstanding a size as London. To get all the small and the medium-sized authorities to agree on such a subject is very difficult. But it has to be done. We have within this larger region 14 to 20 sub-regional committees, each including a number of local authorities, but the County of London is not one of them; and in the nature of things it would not be possible for the County of London to be represented on 14 regional committees. It can be represented on one, and it is very important that it should be. That is this Committee, which is representative of the County of London and of such area around as is closely connected with it. I have been connected with other regional committees, and I have found that at the outset local authorities are jealous of one another, and, in particular, smaller authorities are nervous of the larger ones. When it came to working together on a scheme of this sort, however, they soon learn the value of co-operation. As far as my experience goes, there has never been difficulty with regard to the co-operation of the different local authorities on these regional committees throughout England, when once they have got started. I hope it will be so in the Greater London Committee. I think

it will; I think the smaller authorities are beginning to realise that there is no suggestion from any quarter that their statutory powers shall be taken from them. They must carry out their own town planning schemes, as before, but they have themselves realised that there are certain matters, such as these regional open spaces, with belts around London, which are too big for the smaller authorities to tackle.

Dr. Unwin has explained something of what the proposals are. When Mr. Culpin says he wishes Dr. Unwin could deliver these speeches to the members of the Regional Planning Committee itself, I think we may say he has done so. What I think even more desirable is that he should deliver the lecture to each of the authorities within the region, for whereas on the Committee all the members learn the facts and arguments with which it is concerned and those members may unanimously agree to a report, it does not follow that the members of each local authority will agree when they have not had the facts put before them in the same way. It remains for those representative persons to pass on the knowledge to their colleagues, and I hope that will be done.

This Regional Planning Committee is only an Advisory Committee; it is only a tentative concern. The Report must go before each one of these local authorities, and each one is asked to consider the recommendations and express their opinions on the proposals which are made, and it is to be hoped that they will consider these matters very carefully and fully and without prejudice. I think that if they will take the trouble to look into it from an unprejudiced point of view, there will emerge a unanimous opinion in favour of the proposals which you will find in the Committee's Report.

Mr. W. R. DAVIDGE [*F.*]: I think we should realise that each generation has had its job to do in this great town planning work. When people say it is a pity that London was not planned a hundred years ago, they are probably not conversant with the fact that London was being planned a hundred years ago in many directions; that the arterial roads which were laid down outside London a hundred years ago were proportioned consistently with the London of that day, and they compared very favourably with the 150 miles being done by the Ministry of Transport at the present day. Each generation has done its bit, and the Government of this country for the time being has always regarded London as a special duty for it to look after. The Government, down to the middle of the last century, always assisted in the public works of London, in the rebuilding of old London Bridge, the building of Westminster Bridge, the laying out of Regent Street, the laying out of New Oxford Street and Victoria Street, Westminster, the provision of Regent's Park, the provision of Battersea Park, the provision of Victoria Park: these were all done by the Government of the day. I want you specially to realise that the whole of these great improvements to which we owe so much in the past were the work of the Government of the country which felt its responsibility towards London. There are scores of other instances. Right up to the formation of the Metropolitan Board of Works the Government realised it was its duty to look after London. In 1855 it handed over to a body which was supposed to represent London, the Metropolitan Board of Works, the doing of many things. They did wonderful things, but they were limited in their scope. They did some surgical operations inside London, but they had no thought for outer London. The London County Council has been following on the same lines, to some extent, as the Metropolitan Board of Works, and it has been even more limited, because in the last forty years of the Board's existence the values had grown so that it was almost prohibitive to do anything. If you look at the comparative increase you will find that the London County Council has done a great deal, but certainly not more than any previous generation has done. We have had Kingsway and Aldwych, great things, and now we have Charing Cross Bridge, which in itself will cost more than all the improvements carried out by the Metropolitan Board of Works in 40 years. If you add the cost of the street improvements, including the Thames Embankments, this great Charing Cross Bridge will have cost as much as all of them put together. It is all-important that it should be done properly. It is only the first of many things that have to be done and it is all-important we should realise that this generation has so far done comparatively nothing, compared with the generations which have preceded it. Each generation has had its job, but we have a bigger job than any generation which has gone before has had. It is up to us to think of London not as a parish, but as a vast area on which we are dependent for our livelihood, and as a place in which we must spend our lives. We have to make the London of the future a place which is fit to live in, and we must not think of it parochially.

Mr. T. CHARLES, J.P. (Member of the Greater London Committee and Chairman of the Traffic Committee), thanked Dr. Unwin for his paper.

MAJOR H. C. CORLETTE [*F.*]: May I suggest that the subject we have heard discussed is not merely a London or a local matter. The questions that have been raised by our London experiences already affect, or soon will affect, every new city overseas. A new Capital City is being built at Canberra, where timely warnings might help the avoidance of some mistakes. In Sydney a great new bridge is being built. And already important city planning and traffic problems have arisen in relation with it that require solution. If any sort of liaison could be established between the work of the Advisory Committee on the planning of Greater London and those officially concerned with such matters in the Dominions some good purpose might be served. And in any case as this Royal Institute is a truly Imperial organisation I shall hope that at least a copy of this address may be sent, not alone to the members of the R.I.B.A. overseas, but also to official and educational bodies to whom it might be helpful.

The CHAIRMAN: Your remarks shall be considered, Major Corlette.

I now put the vote of thanks to the meeting.

It was carried by acclamation.

DR. RAYMOND UNWIN, in reply: What Mr. Ashbee said about æsthetics and history is important, and it should not be lost sight of. Sir Theodore Chambers, I think, touched a fundamental matter in the relation

between freedom for the individual and effectiveness of collective action. The individual's sphere can only be preserved by collective action; it is along those lines that I see the outline of a synthesis between the two.

Mr. Davidge has very ably reminded us that as London grows bigger it has a bigger bit to do. I am glad to have the advantage of Mr. Davidge's help, as well as that of Professor Adshead, Mr. Hunt of the London County Council, and Mr. Thompson; all are giving us valuable assistance and advice, besides the invaluable help of Mr. Montagu Harris, our Secretary, and the Chairman and members of the Committee. All the members of the Committee recognise that in this job we cannot afford to neglect any help which can come to us. I hope we shall get help from many directions. We have to pull this big scheme through together, by helping one another, and by bringing our ideas into the pool. It is a big scheme; it is very difficult when you attempt to get any sort of conception of what is concerned in a scheme embracing 2,000 square miles of land. When you think of planning a few acres of land, then multiply that into square miles, and then multiply to get 2,000 square miles, with a population of nine millions, you will see it is a very complex problem, and for it we want all the help we can get.

The following contribution to the discussion has been received from Mr. GILBERT H. JENKINS [*F.*]:—

I should like to draw attention to an aspect of Regional Planning which seems in danger—I will not say of being overlooked, but of being unduly subordinated, viz.: The needs of the countryside as opposed to those of the town.

Until recently these needs were unvoiced, but we have lately seen the establishment of the Council for the Preservation of Rural England, which is doing sterling work on certain lines. These appear to be (1) The saving of as many beauty spots from the activities of the speculative builder as is possible, by purchasing the land from private owners and vesting it in a public trust, or, in other words, converting it into a kind of public playground for the towns. (2) The preservation of as many of the beautiful old houses and cottages as can be achieved by similar means or by suggesting to the owners that their preservation and restoration is a sound financial proposition. (3) The prevention of disfigurement by advertisements or litter.

I had hoped that Mr. Guy Dawber, Professor Abercrombie, or someone more eloquent than I, would have come forward—not to decry town or regional planning—but to suggest that a redress of the balance between the needs of town and country is urgently needed. Otherwise, we are in grave danger of turning rural England either into a series of suburbs or of satellite dormitory and week-end residence towns, or of seaside, moorland, lakeland, or mountain pleasure resorts for town dwellers.

The point I wish to make is that the whole of the town and regional planning treats the development and planning of England entirely from the point of view of the townsman. The city or town and all its needs is the focal point. Here should be placed the shopping centres, there the factories and workshops, this is the best site for the better residential quarters, that for those of the working classes. To make the town healthy so many acres of park or playgrounds are needed and to provide proper communications these great trunk roads and those bye-passes must be provided, while in the outskirts so much land must be left for the vegetable and milk supplies of the urban population. There is nothing in this philosophy which considers the needs and amenities of the rural population.

We, as architects, were the originators of town planning, and the great regional schemes are in our hands to make or mar. I would strongly urge that the time has come when a constructive policy for the preservation of rural England is as necessary as that for the orderly development of our industrial and commercial centres, and their dependencies, the residential districts. The gist of the problem seems to be the means whereby the gradual absorption of the whole of rural England by its towns is to be prevented. One way to prevent this would be to ensure that our towns shall be more compactly planned, but the whole present-day tendency of town planning is to spread the buildings out over a wider area.

In a recent town-planning scheme in a London suburb, it is laid down that in the shopping centre only one-half of the sites are to be covered, if the buildings are under thirty feet in height, and one-third if they exceed that height. When such a clause was drafted, the modern tendency to have lock-up shops of at least twenty feet clear frontage, and to avoid basements for storage, was overlooked. Such a shop with its storage, and staff rooms and two sets of lavatories, will be from sixty to one hundred feet deep, and eleven feet high in the clear. The staff no longer lives on the premises and the ground in the rear is only needed for garage and sheds for empty packing cases, which would normally cover most of the yard space. The cost of the land is approximately £1 per foot super, and it is neither desirable nor economically possible to give plots 200 feet deep for these shops.

To lower the cost of each shop, maisonettes or flats are placed on the upper floors, and to obtain these within the thirty feet prescribed for height the rooms have to be eight feet high or less, with a flat roof. If even nine feet is given to the living rooms, or a tiled roof is required, the sites under this regulation must be 300 feet deep, 200 feet of which is wasted yard space. The maisonettes or flats are only used as dormitories by town-dwellers, and there is no regulation that the plot within the back road shall be laid out as a garden for the common use of the shopkeepers or maisonette-dwellers, so that the scheme is bad both from a town planning and an economical point of view. In this scheme, houses are to be only four, six, eight, or twelve to the acre according to the district, and the whole effect is to spread this new suburb over much more of what was until recently an attractive piece of the home counties than it would occupy had not the town-planning scheme been adopted. This doubtless is greatly to the benefit of the townspeople, but it is quite time to consider whether it is to the benefit of England as a whole that London suburbs should be allowed to spread so widely over the countryside. Lately, the upper classes are giving up their large town houses and are going to live in flats, and the spread of this habit among townspeople of the middle and lower classes, particularly of our large cities, would retard the lateral spread.

In considering a regional plan for London, would it not be possible definitely to lay down areas where the erection of five or six floored blocks of flats should be planned in conjunction with the shopping centres, each block arranged around a square definitely allocated as a common garden, with avenues of trees on the sixty, eighty or hundred foot roads which are becoming the standard. Instead of twelve small separate houses for the working classes on an acre, there would be blocks of flats which would house over twenty families per acre with good gardens. This would secure some of the amenities of the country to the inhabitants without occupying so much of the open countryside.

In the next half century the leases of thousands of small suburban houses will fall in, and the regional plan should aim at the replanning of these areas on such lines, rehousing the people on even less land than is now occupied, with fewer and more widely spaced roads and larger gardens held in common. Such a plan would go far to prevent the unnecessary spreading of London over further portions of the home counties to accommodate its increasing population. Doubtless Dr. Raymond Unwin has already many such schemes in his mind, and is hoping for a widening of the existing town-planning Acts to enable the authorities to solve this problem left us as a legacy by the short-sighted policy of the nineteenth century owners and builders. I would suggest, however, that it is time we defined some kind of schedule of height of buildings in relation to the areas occupied by the town or city so that it might be induced to spread upwards more rapidly than outwards, and that such a policy would go far towards what I am sure we all desire—the Preservation of Rural England.

Metal Crafts in Architecture*

BY GEORGE DRYSDALE [*F.*], DIRECTOR OF BIRMINGHAM SCHOOL OF ARCHITECTURE.

Ever since the days when it was considered hardly necessary as part of his training for an architectural student to spend some time in the shops actually working on the various crafts used in building, it has been difficult for him to learn sufficient of the nature of their materials to be in a position to undertake their arrangement or design. Nowadays in the schools where an attempted explanation of the meaning of design is undertaken at the earliest moment, and when exercises are regularly set in its application, difficulty is found in getting the student to realise, as it were, the inner nature of the various materials involved, condemned as the schools are to work for the greater part on paper. There is a danger that while beauty of form, scale, proportion and composition may be better understood, in a general way, future work will lack that very necessary quality of sympathy with the material employed. Many of us have suffered from chips in the eye, from splinters, from bruised fingers, and have felt little the better from our early introduction to stone, wood, or metal as the case may be. Books such as the one under review will be found in consequence of great value to the student of architecture. *Metal Crafts in Architecture* is a volume arranged by an American, and dealing with the metals used in the crafts, one important omission, wrought iron, is reserved for a special volume. The method of the author is first of all to give a historical survey of the uses of a particular metal in the past, following this up with a fairly clear description of how it is worked at the moment. He then describes some of the common dangers and tricks both of the metal and the craftsmen, following this again with numerous illustrations. These, unfortunately, as is the case with so many modern publications of this kind, are almost all photographs, not very large in scale, and some of them not too clear. A number of drawings and details to large scale would have very much enhanced the value of the book. It is surely such a very important thing to be familiar with the exact sizes of the ordinary parts, in the design of metal work especially. Following the arrangement of the book, bronze is given pride of place. Emphasis is very wisely placed on the very necessary refinement of detail required in this material, a refinement one so seldom sees. We are told that Messrs. McKim, Mead and White always had their plaster models coloured as bronze before approving them. Recipes are given for the various patinæ required and insistence on the architect's specification of the "chasing" desired. The illustrations are mostly photographs of Italian and American doors. While noting the excellence of the American finish, the poverty of the motifs used compares very unfavourably with those of the Italians, even if the latter had the whole of the Bible ready for their use. Ghilberti is safe in his usual quota of praise. Many of the earlier masters, unknown for the most part, speak for themselves in the photographs. We can also see how bronze can sympathise with plate glass, some of the American counter screens, window grilles, ticket booths, and Mr. Friedlander's fine traffic control tower show this. Brass follows a note taken of the many magnificent mediæval brasses of this country. Here the necessity of a satisfactory amalgam of metals to obtain the best results as to colour is hardly insisted on, though we are warned of the need of constant cleaning when this material is to be used.

Cast iron follows, with the exception of Sussex fire backs, for so long the Cinderella of the craftworkers' metals in this country. A dislike started perhaps by Wren, and very much reinforced by the commercial providers of the past century, has prevented cast iron from ever coming into its own in England. The examples

**Metal Crafts in Architecture.* By G. K. Geerlings. 4o. New York. 1929. [Scribners.] £1 10s.

from the Southern States illustrated in this volume for the most part make this a fact not to be wondered at.

Messrs. McKim, Mead and White, however, have used cast iron in a most satisfactory manner, and since the War certain other American architects have produced very pleasant designs in this material. Coarser than bronze, bolder and heavier, when used sensibly no one can deny it has great qualities, while the necessity of its being preserved in paint adds further possibilities in its use as decoration. We are warned, however, to superintend very carefully the castings.

Copper with its qualities of thinness, self-colouration, malleability, etc., is followed by lead. Here again England gains a high place for the beauty of her rain water heads and her cistern fronts, France claiming chief glory as a producer of beautiful lead vases. Lead is admired for its colour, for the fineness of detail possible in casting, and, of course, its permanency.

Zinc is not given much credit, while tin is mostly found useful in lighting fixtures and for decoration applied to lead.

Raymond Hood's building in Great Marlborough Street is instanced as an example of the possibilities of a modern use of enamels. Monel metal, copper on glass, steel and electro-plating complete the list. The final chapter deals with specifications and should be very useful, and the index is fairly complete.

Judged by this book, and remembering the French Exhibition of 1925, metal work generally seems to be progressing and healthy, though some of the special modernities such as the entrance in Park Avenue, New York, seem to me dreadfully ugly. Finally, it is pleasant to find Mr. B. J. Fletcher's lecture on " Right Making " freely quoted in the introduction, and to note good work by the Birmingham Guild in the illustrations.

Reviews

COLLEGE ARCHITECTURE IN AMERICA AND ITS PART IN THE DEVELOPMENT OF THE CAMPUS. *By Charles Z. Klauder and Herbert C. Wise. Sm.* 4o. *New York*, 1929. [*Scribner's Sons.*] £1 1*s.*

This is a book on American " College Architecture." It is probably the first work on the subject. It is not a very big book, but the subject dealt with is a very large one. However, the authors have acted as pioneers in breaking up the ground and making matters easier for those who follow after.

The Institutions touched on vary from well-known universities, such as Yale and Harvard, to less outstanding places, such as Sweet Briar College, for which is shown a delightful little lay-out by Cram, Goodhue and Ferguson.

As the authors' space for explanatory letter-press is somewhat scanty, the considerable number of reflections on college life, of which the following is a sample, might have been omitted without reducing the value of the book :—

> " The affection of the college man for his *alma mater* has at least one picture sufficing to command his devotion. It is the college scene. Now the college scene is impossible to think of without its setting of architecture. What student sensibility is there unresponsive to the beautiful nave where the daily chapel was held, the stately portico where the class would group itself to be photographed, the window of the study where Cæsar was conned under sheltering eave and overlooking roofs and chimneys ? And many an old grad has reflected that students may come and go, classes enter and graduate, but that venerable walls and carved chimney-pieces, picturesque gables and vaulted archways endure for ever. These remain his own because always present in his mind's eye, and he prays that change and decay may never reach them."

In its historical survey the book goes back to the beginning of time as far as American college architecture is concerned ; and we are given a view of William and Mary College, " designed by Christopher Wren and completed in 1697." There is, apparently, practically nothing left of Wren's original work.

Then, in the middle of the eighteenth century, came a great period of university building, when the three principal American universities—Harvard, Yale and Princeton—were begun.

In the chapter on " General Development Plans " there is an attractive photograph and lay-out plan of the Massachusetts Institute of Technology, designed by Welles Bosworth. Unfortunately, most of the plans are too small to be of much use for reference purposes, and no doubt the book is intended rather for the use of university authorities than as a guide for an architect seeking a solution to a problem in the planning of some educational building.

The conclusion one comes to after a study of this book is that the American undergraduate, man or woman, is treated much more like a child than is his British contemporary. Glance at the list of " Buildings for Student and Faculty Welfare." This includes not only hospitals, Y.M.C.A. and Y.W.C.A. buildings, clubs, athletic buildings and so forth, but also caféterias, Alumnæ rooms and other details, till one wonders if there is any hour in the day which these young people can really call their own.

It is possibly this early training in enforced companionship which makes the herd instinct so strong in Americans, more especially among the women, who seem to delight in travelling in crowds. This is what the authors say about university clubs :—

> " The predominant character of the building should be homelike, for it is indeed a home for the student, and yet more. It is his club, and yet more ; for it combines the comforts and conveniences of a club with those of a hotel. And yet it is more than a hotel, for all these comforts are merged in the pervasive atmosphere of the college of the student's choice, and he has as a member of the Union a direct personal interest in its activities. The Union building is the daily haunt where he and his friends meet, talk, eat, work and play. It has been said that ' the Union is the recognition of the importance of the leisure hour.' "

The American system of naming college buildings is interesting ; what we call the colleges in a university

become "Dormitories," or, in the case of women's colleges, occasionally "Sorority houses," a swimming bath becomes a Natatorium, a speech hall an auditorium, and so on. Presumably also the theatrical word "audition" for "hearing" comes to us from across the Atlantic.

There does not seem to be any mention of a very valuable adjunct of some of the American universities—the Agricultural College—but, on the other hand, we get a view of the School of Commerce of the North Western University, a remarkable building which has rather the appearance of a large church mounted on a vast office block. There is also the Cathedral of Learning now under construction at Pittsburgh, shown in a perspective drawing with a tower rivalling the Woolworth building, New York. As to this tower, the author says :—

> "In the lofty tower under erection at Pittsburgh . . . there are numerous practical and economic advantages combining with the aspiring outlines of the design. The college and university world should be grateful to the University of Pittsburgh for venturing such a bold experiment, the outcome of which will be awaited with considerable interest."

What these advantages may be, however, is not indicated.

The book is illustrated by a large number of excellent photographs of buildings from Virginia to Seattle ; among them works by Cram, Goodhue and Ferguson ; Cass Gilbert ; McKim, Mead and White and other noted architects.

ARTHUR BARTLETT [*F.*].

EXPERIMENTAL BUILDING SCIENCE. VOL 2 ; BEING AN INTRODUCTION TO MECHANICS AND ITS APPLICATION IN THE DESIGN AND ERECTION OF BUILDINGS. *By J. L. Manson and F. E. Drury.* 8*o. Camb.* 1929. [*Cambridge University Press*]. 18*s.*

This is a valuable book for all who deal with building construction, the development of which is largely due to the use of steel and reinforced concrete, the scientific use of which depends on a sound knowledge of the principles of statics.

Dr. Stradling in his lecture on the work of the research station referred to the fact that much of the present building practice was based on what he described as folk lore craftsmanship that had no scientific base, but was the result of centuries of trial and error. This book gives the application of scientific methods adopted in the new methods of construction and also their application to the older methods of building.

The book is divided into three sections.

Section 1 deals with the general principles governing the equilibrium of systems of forces, and with the application of these principles to the analysis of the forces acting in framed structures. The stability of the forms of scaffolding, hoisting apparatus and other large temporary structures used by the modern builder is utilised to form the basis of an elementary discussion on the stability of complete structures. The stability of cranes and forces in masts and derrick towers are dealt with in a very interesting and instructive way.

Section 2 is mainly devoted to the development of the ordinary theory of bending. In building up this important subject very careful attention has been given to the order in which the theory is developed. Thus, the forces acting in a loaded beam are first considered as separate forces apart from the strains and stresses set up in the material of the beam ; fundamental relations are then established in a simple manner before the full theory is introduced. Similarly, the somewhat complex relations between the shear stress and bending stress in beams are dealt with immediately after an elementary consideration of complementary shear stresses.

Section 3 deals with the principles developed in the two preceeding sections as applied to modern forms of building construction.

The principles of construction in steel and in reinforced concrete, and especially the theory of column design, have only been developed far enough to be of service to the young student, and to the general reader, but the treatment is such as to prepare the way for a more specialised study in any particular direction.

In order to show how the older methods of construction may be modified to conform with the new scientific methods of design, the subject of masonry and of timber construction have been dealt with.

The reader of the book is assumed to possess a knowledge of the elementary principles of mechanics. The treatment is very clear, and difficulties of a purely mathematical nature have been omitted where they add very little to the elucidation of the subject. In cases where the more advanced methods of mathematical reasoning may be used with advantage by readers who are familiar with them they have been included as alternative methods.

While graphic methods have been freely used throughout the book, the authors lean to the view that arithmetical and algebraic methods of solution should be utilised in the first attempts as experience shows a sounder knowledge of the principles involved can be obtained in this way.

H. D. SEARLES-WOOD *F.*

PHOTOGRAPHS AND DRAWINGS OF THE BANK OF JAPAN. *A Memorial of the Life work of Dr. Kingo Tatsuno. fo.* [*Tokyo.*] 1929.

Among the more important recent presentations to the Library of the Institute is the portfolio of plates illustrating an outstanding work of the noted Japanese architect, the late Dr. Kingo Tatsuno.

This artistically produced and finely printed work has been acquired through the generosity of the Committee for the Commemoration of the Life Work of Dr. Tatsuno, and in particular by the action of the Chairman of that Committee, Baron Koi Furuichi.

The portfolio contains reproductions of a full series of beautifully executed drawings and photographs of the monumental Bank of Japan building in Tokyo, and includes 30 plates of drawings, six of them in colour, printed on very heavy white hand-made paper. There are 12 pages of letterpress printed on the same paper, and these, as well as the titles and descriptive notes on the plates, are in Japanese character only. There is no translation except on the title-page.

The design is simple and monumental. No traces of any Japanese or other Oriental motifs appear, the whole being consistently carried out in a strictly conventional Renaissance style. The only attempt at deviation from this rule is made in some of the plates showing interior decoration. Here the wall-surfaces are divided into panels in which purely Japanese subjects are painted in the typical Japanese manner. The combination of these panels with the somewhat heavy Renaissance detail employed in the surrounding mouldings and joinery, is not altogether happy, although interesting as an experiment. In other respects, however, the plates manifest the good taste, skill and patience of the architect, and it is not surprising that this building has been generally regarded as one of Dr. Tatsuno's most successful achievements, although it was completed in 1896 when he was still comparatively a young man.

The late Dr. Josiah Conder, F.R.I.B.A., was Professor of Architecture at this time in the Imperial College of Engineering in Tokyo, and Dr. Tatsuno was trained there and graduated in 1879. In 1880 he came to England with a Japanese Government Scholarship and entered the London office of William Burgess. At the same time he studied in the Royal Academy Schools and attended lectures on Building Construction at University College. On the completion of his work as a student he made the "Grand Tour" before returning to Japan in 1883.

Some time later, when the Bank of Japan building was projected, he was retained as architect, and he then travelled extensively in Europe and America for the purpose of practical observation. It was as a result of this expedition that he was made an Honorary Corresponding Member of the Institute of American Architects. For a considerable period he was Professor of Architecture in the Tokyo Imperial University, occupying for a time the Deanship of its Engineering College. In 1902 he retired from educational work, and from that time devoted himself entirely to his practice. At this period he opened offices in Tokyo and Osaka and enjoyed a long and successful career. In 1919 he died at the age of sixty-five, leaving behind him many monuments to his greatness, of which the Bank of Japan in Tokyo is one of the most notable.

It will be seen from this brief record of his career and early training that Dr. Tatsuno was well fitted to be an exponent of Occidental architecture. He designed in the Renaissance style with a masterly ease and skill, and, whether or not we agree that this is the style best suited to the climatic and other special conditions of Japan, we must pay a tribute of admiration to the man, and marvel once more at a capacity and adaptability which is typical of his race.

ARNOLD SILCOCK [*F.*].

MODERN DANISH ARCHITECTURE. *Edited by K. Fisker and F. R. Yerbury.* 4*o. London: [Ernest Benn, Ltd.]* £1 12*s.* 6*d. net.*

This publication by Messrs. Ernest Benn, Ltd., of *Modern Danish Architecture* of the past eighteen years is illustrated by an excellent series of photographs and plans, edited by Kay Fisker and F. R. Yerbury. As the authors point out, Denmark has missed the worse architecture horrors, which may be seen elsewhere in Europe, and the photographs show the strong traditional feeling in the majority of the examples, which, with the exception of a few internal details, might have been erected one hundred years earlier.

The general impression on looking through the illustrations gives the effect of good and simple building. The one exception to the above criticism is Grundtvigs Church, Copenhagen, which is given on the cover of the book and forms the first set of illustrations. The church has a most striking façade in a modern Gothic style, designed by P. V. J. Klint; this building has already had some influence on contemporary architects in France. There is no doubt that such modern buildings on so imposing a scale stimulate the imagination of those who have an interest in architecture. The plan is on more orthodox lines than the façade, but unfortunately no photograph has been given of the interior.

The numerous plans given in the book have been carefully drawn, but a scale drawn on the plan would have given additional interest, and enabled the reader to visualise the size of the buildings.

The Police Headquarters in Copenhagen by H. Kampmann has an interesting plan on an island site, with fine axial planning on the lines of the French School, and in design might have been a pre-war building, with the possible exception of some of its internal detail. The conference room and corridor are modern in their details and the rather unique entrance to the Police Director's Office, a massive shell, which the rather frail doorway is supporting may be emblematic of the oyster and the methods adopted inside.

The remaining illustrations in the book show museums, schools and private houses, flats and commercial buildings, all of traditional character, which might almost be called timid in comparison with the more dramatic compositions of other modern European work.

Denmark, like England, is not an emotional country, and although it may be easier for the architect to design in the so-called Classic or Renaissance styles, whether we like it or not there is an unmistakable demand for new ideas that can only be satisfied with new forms and new thoughts in our architecture, and it must meet the conditions created by science and commerce, conditions that previous architects have not been called upon to meet.

C. LOVETT GILL [*F.*].

THE ARCHITECT. *By Clough Williams-Ellis (Life and Work Series.)* 12 *mo. Lond.*, 1929. [*Geoffrey Bles.*] 5*s.*

This autobiography is the second of a series written by leading members of

" the professions in which men engage,
The Army, the Navy, the Church, and the Stage,"

in order to give an account of their various problems and experiences, which the publisher " hopes will be of interest to fellow-members, and of help to those who are about to choose or commence their life's work."

On its value for the second purpose the author disarms criticism in advance by admitting in the preface, what the book itself reveals, that he is " utterly and absurdly unrepresentative of the profession as a whole," so far as the normal method of becoming an architect is concerned: in fact, to the modern five-year-course academic educationalist he is almost as much of a stumbling-block as that brilliant scientist and Professor of Astronomy at Oxford who took up architecture as a side-show when he was about thirty, no doubt from his interest in the mechanical problems it offered, and rose to such heights of glory that his name alone would now occur to any average man in the street who was asked to mention a great English architect.

About half of the 190 pages are directly concerned with the practice of the profession, and the earlier part of the book follows, on a small scale, the conventional design of the full-dress autobiography, beginning with chapters on early years, school, and university, here labelled with more picturesque headings

In the school period, we have an account of Sanderson, of Oundle, as he appeared to a generation of boys whose point of view was distinctly not that of the later eulogists who led to his final apotheosis as the model of all headmasters. The author's inborn instinct for architecture was already making itself felt, but found no scope at a school whose aim was mainly scientific; and at the next stage of his career he embarked on Natural Science at Trinity, Cambridge, but after one desultory year delivered a kind of family ultimatum which ended in the compromise of leaving Cambridge and taking up engineering, since architecture itself could not be visualised as an eligible profession, nor was there any obvious method of preparing for it.

It seems remarkable that in that year (1900 to 1901) such a view should still have prevailed. The A.A. School had then been running for some years, likewise the School of Architecture at Liverpool University, under Professor Simpson, but the author only discovered the gateway to the profession by the prosaic but practical scheme of looking up " Architecture " in the Telephone Directory, which led to an interview with Mr. Maule and enrolment as a student at the A.A., after a convenient vacation month in contact with an actual piece of building work in the country.

The reader might now suppose that Mr. Williams-Ellis was at length destined to follow the normal course of training which is briefly outlined at the beginning of the chapter headed " Practice." But fortune, still determined to keep him unrepresentative, had endowed him with that gift which is more precious to the embryo architect than rubies, or even alluring draughtsmanship, namely, a large and varied assortment of relatives and connections, willing to be helpful; so that hardly had his second term begun, when he was confronted with an actual JOB, which he boldly undertook, severed his connection with the A.A., and started a diminutive office in the rooms of an older architect who provided friendly hints on practice.

With the formidable trials and obstacles of the " Honeywood File " fresh in our minds, we can only marvel at the luck with which this first building was carried through by an architect so inexperienced that he did not even know what a certificate was (did not Mr. Williams-Ellis then use the contract form of the R.I.B.A., in which the purpose of that document is described at some length?). But the fortunate beginning was followed at once by a " nice and rapidly growing trickle " of small houses, a translation to a larger office, and a fully-fledged and increasing practice, apparently without any of the usual voids and gaps, or the risks and disappointments of competitions.

In the course of these chapters some sound and well-balanced opinions are given on many problems which arise in modern practice, such as the treatment of clients, their functions and limitations, and the dangers of too accomplished draughtsmanship in misleading not only the public but the architect himself as to the real merits of a design. With his strictures on the system of the Architecture Room at the Royal Academy most of his colleagues would, in their heart of hearts, entirely agree, though they too may have bowed to the convention and sent in " poshed-up " tricky pictures prepared for them by one of the favoured perspective artists of the moment. His own experience of results has shown its total lack of publicity value, merely from a business point of view.

The later part of the book contains two digressions, the first on the war interlude, which has the general historical value of all personal records of that period, the second entitled " Confessions," which might be appropriate enough in a press interview or an article in a weekly journal, but seems out of place in a book which is obviously intended to have some permanency as one of a series appearing at intervals during several years. It is a wise rule for any writer thus occupied to ask himself, " how will this paragraph, or this chapter, strike a reader ten or twenty years hence? " We can hardly suppose that a young architect, say, in 1945, will be greatly thrilled to learn that Mr. Williams-Ellis did not care to look at " acknowledged masterpieces of architecture " because their surroundings usually depressed him, did not appreciate painting in the form of easel pictures, had hardly any ear for music, was " coldly respectful to poetry," and only went to a theatre about once a quarter. In fact, the last four pages of this section, on the Epstein-Underground controversy, seem already slightly " dated."

Finally, there is an account of the origin and progress of Portmerion, that enchanted promontory on the Welsh coast, where a unique experiment has been tried in materialising an architect's dream of the ideal seaside colony of congenial people living under a strict but benevolent and enlightened autocracy. Here the author is again unrepresentative of the average architect, who could hardly hope for such an opportunity of controlling the design and setting of a group of his buildings, in the most beautiful surroundings.

On the other hand, the acceptable and discerning people who are deemed worthy of this paradise may be able to

call their souls their own, but cannot claim the same rights over their environment. They have no say in the external decoration of their homes, and may not make any internal alterations without permission : we wonder whether their pianos, dogs, plus-fours, and college blazers are also required to conform to the general colour-scheme. Worst indignity of all, their private gardens are planted and maintained by the Central Authority (as at Port Sunlight), so that even the position of their hydrangeas is decided over their heads—a state of servitude to which no true garden-lover would willingly submit !

Mr. Williams-Ellis writes throughout in an easy and conversational style which is pleasant to read and establishes a feeling of personal contact between writer and reader. The general impression given by the book is that *if* the would-be architect could see a reasonable expectation of a career so interesting and enjoyable as that of the author, the profession would soon be congested by a crowd of enthusiastic aspirants.

RONALD P. JONES [*F.*].

GREAT BUILDINGS AND HOW TO ENJOY THEM SERIES.—Greek, Byzantine, Romanesque, Norman, Gothic Architecture. *By Edith A. Browne, F.R.G.S.* 5 *vols., sq.* 8*vo. Lond.* 19—. [*Adam and Charles Black.*] 5*s. each.*

This series was begun in 1907 when architectural books for ordinary readers were somewhat scarce. The latest volume is a second edition of that devoted to " Gothic," and it contains some authentic information as to the damage done to certain buildings during the War. We in England hardly realise the extent of the precautions taken by the French Government to protect some of their artistic treasures. Even so far away from the front as Chartres, the whole of the ancient glass in the cathedral was removed and stored. Similar precautions at the abbey of St. Denis were not wasted, for the modern stained glass which was allowed to remain was all destroyed in an explosion in March 1918.

This series of books makes little appeal to architects, but is written for those students who are interested in old buildings and desire a fuller understanding of their origins. Each volume contains about 40 pages of text and 48 full-page photographic illustrations. These are accompanied by notes not always carefully worded, e.g., the note on Tournai runs—" The cathedral was originally triapsal. The nave is one of the finest achievements of Romanesque builders. L. 480 ft." The reader might easily be led to think that Tournai no longer possessed apses at the ends of choir and transepts, but that it did possess the longest nave in Christendom. Of course, the dimension given applies to the entire length of the church.

The writer describes well the partial derivation of the Norman style from Lombardy, pointing out that Richard II, duke of Normandy from 996-1026, invited Lombard architects or craftsmen to come " and erect buildings," and that Lanfranc, a Lombard, became prior of Bec (Normandy) and archbishop of Canterbury.

F. H. M.

MODERN ARCHITECTURE. By Bruno Taut. 4*o. London*, 1929. [*The Studio.*] £1 10*s. net.*

The *Studio*, which has always been keenly alive to the development of the arts abroad, has published a translation of Bruno Taut's book on Modern Architecture, which originally appeared in Germany. While there are many illustrations, this work does not consist merely of a collection of these strung together, but of an essay in eight chapters, each illustrated by appropriate subjects. Bruno Taut's thesis for the new æsthetic is :—" The aim of architecture is the creation of the perfect, and, therefore, also beautiful, efficiency."

J. M. E.

FACADES OF BUILDINGS, OLD AND MODERN, BUSINESS AND DWELLING HOUSES. *Collected by Dr. Werner Hegemann. London.* 4*o.* 1929. [*Ernest Benn.*] £2 2*s.*

Dr. Hegemann, the editor of Wasmuth's Monatshefte für Baukunst, is well known in Germany as an acute and outspoken critic of architecture ancient as well as modern. In this volume he has collected some five hundred examples ranging in date from ancient Greece to the present day and in geographical location from Medina to California. These are preceded by an essay in which the author lays particular stress on the qualities which make for satisfactory streets and severely criticises many individually interesting buildings for their lack of these qualities. It is interesting to note, from a foreign observer, a warm commendation of the new Regent Street, particularly the Quadrant.

J. M. E.

WROUGHT IRON IN ARCHITECTURE. *By Gerald K. Geerlings. Charles Scribner's Sons,* 1929. (12 in. by 9 in., pp. xi + 202 ; 324 illustrations.)

This is a very valuable book, one of the soundest books of its type that could be produced. The author is not only an enthusiast—he has probed deep into the mysteries of the noble craft of wrought ironwork. There is a substantial letterpress, a little " racy " in parts, but with power behind it. The illustrations are wholly admirable, not least the outline " working " drawings done (we understand) by the author's wife. There is much architecture in the book, apart from ironwork. As a finely illustrated catalogue of the best in Europe and America, it is invaluable, apart from its exceedingly practical qualities. It should be acquired by every architect and every school of architecture. American scholarship has indeed to be congratulated on this production which is dedicated to the School of Architecture at Pennsylvania University.

It is gratifying to read : " It must be granted to the credit of English ironwork that it maintained a higher general average and national individuality from the eleventh to the nineteenth century than did that of perhaps any other country." This is a recognition of its value both in mediæval and renaissance times. It is therefore a little regrettable that the fine return to simple craft methods initiated by Philip Webb gets no place, the more so because several full pages of illustration are devoted to modern American work, some of it, perhaps, a little questionable in treatment. However, one must not quarrel with the book on this account. The Spanish section borrows some of the fine illustrations from Mr. Prentice's book.

D. T. F.

Correspondence

REGIONAL PLANNING.

44 *Calgarth Mansions, W.*14.
12 *January* 1930.

To the Editor, JOURNAL, R.I.B.A.—

SIR,—Being unable to join in the discussion on Mr. Unwin's paper on Monday last, may I take the opportunity to enlarge upon his remark that he hoped the general height of London's buildings would not be raised, a sentiment which was widely applauded by the meeting.

It surprises me that one who has contributed so much to the science of town planning should allow an important sphere of his work to be vitiated by a sentiment. Such ideas were, perhaps, laudable when buildings were of brick or stone only, and it was unsafe and uneconomic to build much above 80 feet, but they are now the detritus of an obsolescent building system.

I do not suggest that the legal limit be raised, but that it should be made to perform useful work.

For example, a large block of building is proposed on a main thoroughfare. The building owners would probably be quite willing to set back, say, 20 feet along their main frontage if allowed to raise to 150 feet over three-quarter of the site and to 200 feet over half the site. Street widening would result and the angle of street lightening not be greatly affected.

Another instance: Amid the desolation of South London, residential areas between the main roads could be zoned, with an allowed height of, say, 40 feet for residences. Building owners would be permitted to raise their blocks of flats (the inevitable future of such areas) to ten or twelve stories on condition of forming surrounding open spaces.

Thus could building land be fully utilised, open spaces created, streets widened, car parks formed, all, be it noted, without the local authority having to find the vast sums for compensation which are at present the great deterrent to the replanning of built-up areas, and, incidentally, stay the too rapid declension of the countryside into a mere eczema of speculative housing.—I am, sir, yours faithfully, G. NORBURN [*A.*].

Dr. Unwin writes as follows in reply to Mr. Norburn:

In reply to Mr. Norburn: The objection to high buildings is not based on sentiment nor is it part of the detritus of an obsolete building system. It is based on the painful experience of those who have used the new building construction to test this method of evading the consequences of overcrowding, who are most emphatic in cautioning London against making a similar mistake.

The simple fact is that traffic congestion in streets is directly due to the intensity of occupancy or the volume of building adjacent, and but little relief comes from widening. If a high building is erected, which will be occupied by anything from one to ten thousand persons, no setback of the frontage which could be required would mitigate the traffic strain thus thrown on the street which would not be confined to the building frontage but would affect half a mile of road or more. By the time the whole street became similarly widened the traffic strain along the frontage would have far surpassed the very limited relief which even a long widening will effect.

New York, with frequent main streets 100 feet wide and still more frequent cross streets 64 feet wide, is quite unable to cope with the traffic in its still relatively small areas of skyscrapers.

Let those who wish for higher buildings in London estimate the extent of building area which must be sacrificed to widen London's streets to something like the New York standard: let them add to this the cost of carrying out such widening: let them, then, throw into the scale the disadvantage in this climate of increasing the area shaded from the sun by every building to an extent many times that of the increased height of the building; even if all the claimed advantages of high buildings—to say nothing of the few real ones—were piled into the other scale it would show but a light counter weight. I am convinced that for every pound we spent in raising the height of our buildings in Central London we shall have to spend many pounds to solve the problems of increased congestion that are thereby being created.

The question whether, with a given density of reasonable amount, a higher building and more open space, or a lower one and less space, would be the better, depends on individual circumstances, and is an entirely different one. Experience shows that, owing to the tendency for high buildings to foster high local land values, the higher the buildings the smaller is the amount of open ground which can be secured. R. UNWIN [*F.*].

The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON RECENT PURCHASES

[*These Notes are published without prejudice to a further and more detailed criticism.*]

MOBILIER ET DECORATION: REVUE MENSUELLE . . . *Selection tirée de l'année* 1928. 4*o*. *Sèvres*. [1929.] 30*s*.

When the copies of a journal on Architecture or Decoration are bound into annual volumes, the result is usually cumbersome, and there are many pages of purely topical interest. In this volume, however, the most valuable and most generally interesting articles only are bound into a volume, which thus gives an admirable series of large illustrations of interesting recent work in France. There is not much architecture beyond a few illustrations taken in the Rue Mallet Stevens; there is an excellent chapter on the iron work of Raymond Sabes. The rest of the volume is taken up with beautifully carried out schemes of interior decoration and furniture. Of course in this modern work colour and texture are so important that illustrations can only half illustrate: one must go to Paris and the Exhibitions of Decorative Art. This book at least shows the comfort, practicability and simple richness of the new manner

H. C. H.

THE OLD HOMES OF BRITAIN: THE SOUTHERN COUNTIES. *Edited by Christopher Hussey. Sm.* 4*o*. *Lond.* 1928. [*Country Life.*] 5*s*.

This is an ingenious form of guide book to the principal old houses in Kent, Sussex, Hampshire and Middlesex. Between fifty and sixty houses have been chosen. These are each illustrated by one or more good photographs. There is a map showing where each house may be found, and a topographical list arranged under localities giving the names of the chosen houses in that locality, the days on which they are open to the public and a list of other places of interest in the neighbourhood.

A. H. M.

Sir Lawrence Weaver, K.B.E., F.S.A., Hon. Associate R.I.B.A.

Magister Ceremoniarum.

BY PROFESSOR A. E. RICHARDSON, F.S.A. [*F.*].

To Sir Lawrence Weaver, who died on 11 January, at the age of 53, is due the homage of the architectural profession. He was an example of energy combined with indomitable will power. His loss to the cause of architecture cannot be estimated, neither can his championship be replaced. Weaver had the rare gift of reconciling contrary opinions. He was a born leader, and he picked his followers for their ability. His career, alas, all too short, embraced so many pursuits that it is difficult to say in which he most excelled. As an antiquary, a writer, and a man of taste he gained respect; but it was as an organiser that he figured to the fullest advantage. Throughout his busy life he viewed pleasurable work as the only possible form of recreation. This was his secret; and part of the process was to help young men to fame.

Weaver was born at Clifton, Bristol, and was educated at Clifton College. His early life, after leaving school, was spent first in training as an architect, and later he became associated with various manufacturing firms. It must be remembered, however, that he lost nothing by the latter experiences. Quick to observe and retain impressions, he had the eyes to distinguish between good and indifferent work. It is not surprising therefore that he set out to improve craftsmanship and to interest patrons. All the time, perhaps unknowingly, he was preparing for the wider issues of organisation. It was not until 1910 that Weaver became architectural editor of *Country Life*. For six years he directed the policy of the paper towards better taste in building. Under the heading of "Lesser Houses" he described the chief domestic work of that type carried out in this country. In his spare time he wrote books on architecture and kindred subjects, besides reading numerous papers before learned bodies.

On one occasion he was lecturing at the Society of Antiquaries; the subject concerned Wren's building accounts of St. Paul's Cathedral. Weaver held his listeners and was clearly master of his facts. Those who recall that meeting, will remember the merriment when the farthings stated in the accounts were mentioned. Before serving in the Anti-Aircraft Corps of the R.N.V.R., Weaver had helped to form the Civic Arts Association for he, with others, realised quite early in the war that the public would need advice on the design of war memorials. For a time Weaver disappeared from the circles he had so long advised. His subsequent discovery by Lord Lee of Fareham, in the uniform of an able-bodied seaman at the White City, led to his being seconded to the Food Production Department. Finally, in 1918, Weaver became Commercial Secretary to the Board of Agriculture. It is not surprising that a man of his talents should have made his new duties a passion. Architecture now became Agriculture with a capital A. He had acquired a remarkable grip of the subject, and he quoted from the writings of Arthur Young and Cobbett. The time appeared ripe to expose the obsolete Cobdenism which had long since destroyed the ancient and staple industry of England. From 1919 until 1922, he became Director-General of Land Department and Second Secretary in the Ministry of Agriculture. His schemes were far-reaching, and were enthusiastically received by his colleagues; to his mind, there was no obstacle that could not be overcome. But, alas, circumstances changed, and the subject of agriculture was relegated to the inevitable pigeon hole. Most people by this time were prepared for the insuperable to be achieved by Weaver, and it was no surprise when he became Director of the United Kingdom Exhibits, including the Palace of Arts, at Wembley in 1922. When the Exhibition was opened, the critics began their attacks. Some did not care for the architecture, others complained that they had not been invited to design a pavilion, etc., etc. Few realised the administrative power that helped to make the exhibition the unqualified success it proved to be. The facts all hidden were that Weaver had ruled a horde of busy bodies with no light hand. He had quelled the vulgar, he had improved and unified the majority of the private stands, and he had inspired new ideas for subdued advertising. Not only did he convene innumerable committees, but he acted as Chairman more often than not. The wonder is that he stood the strain. The exhibition at Wembley had the beneficial effect of opening the eyes of architects and the general public to the value of simplicity in the design of buildings. Weaver now headed the campaign against copyism and reproduction, but he did not lose his head as so many did. He remained fortunately an admirer of historical works, and he sought to inspire regard for intelligent evolution in art rather than wild adventure. The term "Modernism" to him meant little. He knew only too well that the technical papers would fall for the "Continental" fashion, and that once the "stunt" had run its course, there would be a frenzied retracing of uncharted ways. At this juncture, the forming of the Architecture Club was an affair after Weaver's heart. The new club was to be exclusive, "its aims to enlarge public appreciation of good architecture and the allied arts, and especially of the best work of to-day." In due course, on the retirement of J. C. Squire, Weaver became President, indeed the choice of the members could not have been better, for here it was thought was a leader who combined literary skill with architectural experience.

To enumerate all the activities of Lawrence Weaver calls for the skill of a cataloguer. To be brief, he was a maker of careers, a patron of craftsmen, a benefactor of the needy and the afflicted. The list is indefinite, for, apart from his position as Honorary Treasurer of the Housing Association for Officers' Families, he practically ran "Ashtead Potters," a society for the training and employment of disabled ex-Service men, and he helped many private individuals to whom poverty was a nightmare.

Weaver did all this, and more, in a light-hearted, carefree spirit; he smoothed over troubles, and he gave his friends the impression that he had the physique of a giant.

It has been said of Weaver that he possessed the Open Sesame for all difficulties. His was the view that saw the way round, his was the ever-youthful enthusiasm that accepted the discourtesy of the times and yet held to an ideal. It is written that no man is indispensable, but here was a leader who placed leadership above ordinary advantage, and one who viewed worldly success as a disaster.

THE LATE KEITH DOWNS YOUNG.

By WILLIAM A. PITE [*F.*].

The death of Mr. Keith D. Young in his 82nd year has removed from our profession a well known personality in the hospital world. Possessed of an undimmed outlook, he was a keen worker until within a few days of his brief and final illness. Educated at Tonbridge School and the National Art Training School, South Kensington, now the Royal College of Art, Mr. Young entered the office of his father, George Adam Young, also an architect. From an early point in his career, he was much and profitably interested in the detailed matters of construction and hygiene, and usefully exercised his literary gifts in various writings. He contributed with Percival Gordon Smith [*F.*] to Shirley Murphy's work, *Our Homes and How to make them Healthy*, Mr. Young being responsible for the architectural part of a long essay, besides occasional articles in the *Practitioner* and other periodicals, and papers on hospital topics at the Institute and the Architectural Association.

There is a long catalogue of Mr. Young's hospital works, about sixty in number, and, with many others beside, he was engaged in a consultative capacity. Among his earlier hospital undertakings may be mentioned the small Miller Memorial Hospital, Greenwich, the first instance in England of the use of circular wards, this being as far back as 1883, and which, with a large Ward block, built in 1911, formed the commencement of a large scheme of reconstruction now in progress. For many years from 1886, Mr. Young was closely associated with the Middlesex Hospital, in extensions and modification, now culminating in the great rebuilding scheme proceeding under the direction of Mr. Alner Hall, the son of his former partner. Among his many other works, too numerous to detail, mention should be made of the Great Northern Hospital, and the Royal Eye Hospital, Southwark, a building containing a number of unusual features in which Mr. Young was closely associated with the well-known surgeon, Mr. Malcolm M. McHardy, F.R.C.S., with whom he was on terms of intimate friendship and collaboration. Another building of special character is the Royal Dental Hospital, Leicester Square, which was the result of a limited competition in 1898. In the same year he carried out the Sir George Johnston Eye Theatre of the old King's College Hospital, Lincoln's Inn Fields, while acting as Consulting Architect; the Evelina Hospital, the Bolingbroke, and the Chelsea Hospital for Women, and his latest, the extension of the Ear and Throat Hospital, Grays Inn Road, are specimens of a wide and extensive experience. Mr. Young also acted as adviser to the Express Dairy Company for many years.

One of Mr. Young's most recent works should not be passed without notice, this being the completion of the second section of the Hospital for Mothers and Babies, Woolwich. This is a unique Institution, due to its character for particular service, and was opened a few days after his death by H.R.H. Princess Mary.

Mr. Young acted as assessor in a number of hospital competitions, including that of the Bradford Royal Infirmary, in 1911, the selected design of which is not now being carried out. Throughout his long professional career, Mr. Young was a diligent worker right down till within a week of his decease. He was a facile and enthusiastic sketcher, not only of architectural subjects, but of natural objects, trees in particular, and had experience as an etcher. His interests, however, were not confined by these pursuits, for he was a wide reader, and had travelled in the Near East, and possessed an attractive library of about 1,500 books, every one of which had been either purchased or presented; reading occupied his evening leisure, and his taste lay in history essays, architecture, and the history of religion—it is said of him that "few men knew the Bible more intimately than he."

Mr. Young was of a retiring nature, and was not often seen at the meetings of the Institute, but his keen interest in matters of professional interest was sincere.

As a friend, his cheery outlook was inspiring, and none sought his counsel in vain. Possessed of a critical instinct, he was strong in his likes and dislikes, and seldom failed to give definite expression to his views with unmistakable vivacity. His passing from us leaves a gap and marks an era of advance in hospital design, upon which his influence is unmistakable in the remarkable progress made in hospital planning in this country.

Mr. Young was associated for many years with the late Sir Henry C. Burdett, K.C.B., the well known hospital authority, and was responsible for much of the useful matter which appeared from time to time in the *Hospital*; the plans of buildings illustrated in that journal being made to a uniform scale were prepared under his direction. He further wrote, year by year, the chapter on current hospital construction in *Burdett's Hospitals and Charities*. In this connection, it may be stated that Mr. Young was responsible for the volume on hospital planning and construction in *Burdett's Hospitals and Asylums of the World*. His other literary productions were contributions in the *Practitioner*, and various papers on hospitals read before societies, and quite recently he had been actively engaged in extensive researches in relation to the planning of the sanatoria of public schools.

Mr. Young commenced practice in 1871, and was elected an Associate in 1875, and at the time of his death was one of the five senior members of the Royal Institute. He was also a Membre Associé Etranger de la Société Française d'Hygiène.

This notice would not be complete without reference to his long and close association with his partner, the late Henry Hall [*F.*], which extended over thirty years, and though generally being individually engaged, the name of the firm of "Young and Hall" was widely known and esteemed.

In conclusion, the writer of these inadequate lines would pay a grateful tribute to the memory of a generous and genial friend, at all times ready to counsel and encourage, and to one of so noble a character as not to be above seeking similar counsel from a junior.

It is with great regret that we learn on going to press of the sudden death of the Rt. Hon. Viscount Esher, G.C.B., G.C.V.O., Honorary Fellow R.I.B.A. on 22nd January.—ED.

Charing Cross Bridge

Summary of Proceedings at Ministry of Transport, on 23 December 1929

Agreed Summary of the proceedings which took place at the Ministry of Transport on Monday, the 23 December, 1929, when the Minister and Sir Percy Simmons, Chairman of the Improvements Committee of the London County Council, received a deputation representing the Royal Institute of British Architects and the Thames Bridges Conference.

Mr. STANLEY HALL, the Vice-President of the R.I.B.A., in introducing the deputation in the unavoidable absence abroad of the President, Sir Banister F. Fletcher, stated that the architects had been concerned about the proposals for a bridge at Charing Cross as long ago as 1916.

He pointed out that subsequent to the publication of Lord Lee's Report, when a Committee of Engineers was appointed to report on this subject, the Institute asked for the appointment of an architect on the Committee. This was refused on the ground that at that stage scientific engineering considerations were the only issue. In the view of the Institute this was a most unfortunate decision, as they felt that an architect should have been engaged from the inception of the proposals, and that though an architect had subsequently been called in it was not fair to any architect to be called in and told that fundamentals, from an engineering and traffic point of view, had been settled.

They considered that on the Surrey side there was an opportunity for the improvement of London and the Thames greater than had occurred since the Fire of London, and that the promoters, in their anxiety to arrive at some finality, had produced a half-baked scheme, having allowed the supposed difficulties to loom too large. They, therefore, asked that the Bill should be referred back for further consideration.

Mr. ARTHUR KEEN, the Chairman of the Thames Bridges Conference, stated that the Conference had looked at this scheme from the point of view of town planning and economy, and they did not consider that proper provision was made for the development of London on the southern side, which was a most vital question. He pointed out that all the successive official schemes had been frankly viaducts and that viaducts were not wanted in Central London. They sterilised the areas that they touched. He also criticised (1) the fact that there was no connection from the bridge to the Embankment on the Middlesex side ; (2) the proposal to cover in York Road for a distance of 350 feet, and suggested the desirability of all works being on the ground level, or as near thereto as possible, and open to the sky ; and (3) that no building sites were formed between the railway and the road.

He also considered that to meet the wishes of the railway company the station was brought much too near the river on the Surrey side and that in the position proposed it would prevent adequate development of the river front and the area behind it. He added that the members of the Deputation did not advocate any particular scheme.

Sir REGINALD BLOMFIELD, R.A., representing the Royal Academy, criticised the scheme under the heads " Cost, Traffic, Architecture and the Surrey side."

He did not think that if the scheme were given effect to the public would be getting value for a cost which was placed at nearly £15,000,000, much of it compensation for buildings destroyed in consequence of the route selected.

With regard to traffic, he drew attention to the closing of roads on the Middlesex side, such as Villiers Street and Buckingham Street, and he did not consider that the approaches on the Surrey side were adequate. The archway proposed at the end of the bridge on the Surrey side would cause congestion of traffic and block a vista from the Strand right across the bridge and to the country beyond. He thought that tunnels on the Surrey side 350 feet in length would be unsightly, noisy, difficult to ventilate, and very dangerous owing to the risk of carbon monoxide poisoning from the exhausts of motor vehicles in the tunnels. Owing to the levels the tunnels through which York Road and Waterloo Road would have to pass, could not have a greater height than that from the Embankment roadway to the underside of the railway passing over it on the Middlesex side though they would be more than three times as long. In his opinion these tunnels were a fatal objection to the official scheme. He criticised the circus for a roundabout on the Surrey side, which he thought was badly designed. The result would be that there would be heavy congestion at this point. From an architectural point of view he expressed the view that the scheme on the Middlesex side had been prepared without regard to architectural possibilities. In particular, the tunnel ramp on a steep gradient and the areas left for building would render it impossible to get a satisfactory architectural treatment. Similarly, he thought that the 1,600 feet of wall formed by the side of the new station along the elevated road would prevent any satisfactory architectural feature there, and, as in the case of the Middlesex side, he thought that the areas assigned for building in the neighbourhood of the circus on the Surrey side would be impossible to deal with.

Generally, he thought that the proposed arrangements on the south side would completely block in the southern area with a solid wedge resulting in there being a hinterland of slums in perpetuity.

Lord CRAWFORD, the President of the London Society, stated in dealing with the town-planning aspect of the scheme that in his view the whole problem should be considered in relation to London as a whole and not only as dealing with a railway problem, and took exception to what he regarded as an arterial road being made before planning the area to be served, and he asked that the scheme should be tested by broad principles and truisms. Firstly, the layout should consider development as well as traffic, as the area involved is in the central and most important part of London. Secondly, good sites are wanted on both banks. The scheme is defective in this respect. Those on the north side are meagre and shallow. On the south side they are irregular triangles and wedges. Thirdly, viaducts, tunnels and vaults are undesirable. Acres and acres of vaults are created, thereby destroying values, instead of creating them, and the scheme would prevent the development of the Surrey side. Fourthly, bridge traffic should be divided, and dispersed as soon as possible, and congestion in the Strand would be serious. Fifthly, shore-to-shore connection is desirable. Lord Crawford pointed out that through there being no access to the bridge from the Embankment a vehicle desiring to go from the Hotel Metropole on to the bridge would have to go all round by the Strand, some 1,200 yards, before beginning to cross the river. Sixthly, there should be easier road gradients. Some of the gradients on the Surrey side were as steep as 1 in 30, and artificial hills should not be made. Seventhly, easy access to and from stations. The proposed arrangements in this respect would cause inconvenience to the companies' passengers, further the termini will be hemmed inside a triangle, expansion being impossible.

In conclusion, Lord Crawford stated that a replanning of the scheme to provide some satisfactory sites for rebuilding would, in addition to improving the appearance, reduce the cost by additional recoupment values.

Sir PERCY SIMMONS, on behalf of the London County Council, described the recent history of the proposals for the removal of the existing railway bridge and the construction of a road bridge. He said he was quite satisfied that every

scheme which had been suggested during the last 30 years for dealing with this problem had been most carefully examined before the present proposals were settled. Many of the schemes were hopeless, from the traffic point of view, and traffic was the primary consideration. His Council were satisfied, as was the Ministry of Transport, that the scheme does deal more effectively and better with the traffic than any other scheme, providing as it does, among other things, excellent facilities for linking up with the tubes.

Dealing with Sir Reginald Blomfield's points on the subject of cost, Sir Percy Simmons did not see how any less expensive scheme could be devised which would be satisfactory.

With regard to Sir Reginald's complaint that, from the architectural point of view, there would not be much of a vista, he did not understand how Sir Reginald could obtain the vista he desired and at the same time cope with the traffic difficulties.

With regard to the Surrey side there would, he hoped, be a beautiful embankment garden. From the traffic point of view the scheme must be considered in relation to the traffic difficulties now existing at the Elephant and Castle and Vauxhall Cross. The scheme would now prevent these matters being dealt with, and proposals for improving the present conditions at these points were actively under consideration, and there would be nothing to prevent further improvements on the Surrey side. Consideration was now being given to the question of the improvement of the traffic facilities north of the Nurse Cavell Statue. He pointed out that Sir Edwin Lutyens had been consulted, and had signed the plan showing the layout, and in its preparation he had a free hand within the limits dictated by engineering and traffic requirements. He added that within the limits above referred to they would welcome any suggestions, which would receive every consideration. He pointed out that the Council intended to go forward with the Bill and that, in his opinion, it was the only chance this generation would have of getting a Charing Cross Bridge.

With regard to the design of the bridge and the viaducts, the Council will no doubt desire that these should be put out to open competition.

The MINISTER OF TRANSPORT, in reply, stated that he could not undertake on behalf of the Government to ask the London County Council to withdraw the Bill and start more or less *de novo*, and prepare a fresh scheme at this stage. Some amendments might be made as the Bill proceeded, but as the Ministry had been in the closest association with the Council it would be a very serious matter for him now to suggest that the scheme was fundamentally wrong and should be withdrawn. Indeed, he thought it would be dangerous to do so from the point of view of those who wanted a bridge at Charing Cross.

As he viewed the matter it was divided into four parts, traffic, engineering, valuation and architecture, and the best advice had been obtained under each of these heads.

On the traffic aspects, apart from his own personal knowledge of the problem, it would be difficult for him to set aside the traffic advice which had been received from Sir Henry Maybury and other experts who, since the London Traffic Act was passed, had made a very close study of the traffic problem, had collected most valuable material and had acquired a scientific knowledge of the movement of London Traffic. Further, he had had the advantage of the advice of the London Traffic Advisory Committee, who generally concurred in the scheme. Nor could he ignore the opinions and advice of the railway company upon traffic matters, for their interests, and those of their passengers, were seriously affected.

With regard to the proposal that the bridge should be connected directly with the Embankment, if this were done much of the traffic crossing the bridge from the Surrey side and going north would proceed up Northumberland Avenue into Trafalgar Square. Traffic in Northumberland Avenue in this direction had increased by approximately 25 per cent. in the last four years. It now amounted in the peak hours to over 1,000 vehicles per hour, was still growing, and likely to do so. Further, Trafalgar Square to which Northumberland Avenue leads, already handles daily in 12 hours nearly 60,000 vehicles, and this traffic also continues to increase.

The Embankment also already carries much fast traffic, which is increasing, and in addition there is an intensive tramway service which, in his opinion, is a most valuable asset in London travelling facilities. Accordingly to bring the traffic from the bridge, on to the Embankment in these circumstances would, in his opinion, invite a very difficult traffic position. It was for these reasons that the layout on the north side of the river had been decided upon, so as to avoid the difficulties which would otherwise arise at the Embankment, in Northumberland Avenue, and Trafalgar Square.

With regard to the site of the proposed new station it was true that the original intention was that it should be set back further from the River than was now proposed. The railway company objected, as they were entitled to do in their own interests and those of their passengers. They suggested that if the present station were to be moved at all, it should be to the site now proposed, and upon a close examination of this proposal the advisers of the Council and the Ministry came to the conclusion that it was a better scheme, as it would provide far greater facilities for passengers to reach the London tube system.

Mr. Morrison further pointed out that the level determined for the railway must control the level of the bridge, and the height at which it must go. This feature involved the viaducts and the so-called tunnels, which are not tunnels in the sense of burrowing, but will merely be roads roofed in to carry the station. He was unable to accept the view that such so-called tunnels need by any means be unsightly.

On the engineering side he was satisfied that the best advice procurable had been obtained and, with regard to the valuation aspect of the matter, full advantage had been taken of the advice of the Government Valuer and the Council's Valuer, Mr. Frank Hunt.

As to the architectural features Sir Edwin Lutyens had been consulted, and the deputation was in error in having asserted that he had not signed the plan of the proposed layout. He did not desire to suggest that Sir Edwin was responsible for the whole scheme, and he would not be prepared to agree that any architect, or body of architects, should deal with important traffic and engineering matters. All three groups of experts must have their say in evolving the best scheme. This had been done and subject to what were considered to be traffic and engineering essentials, Sir Edwin had had a free hand.

Mr. Morrison concluded by saying that he could not ask the Council to reconsider the Bill, and he wanted to make it quite clear that in this matter the Ministry of Transport, both under the last Government and under this Government, had worked hand in hand with the London County Council, and has been consulted at every stage, and had arrived at the conclusion that the scheme proposed was the best practicable one in the circumstances. At the same time he welcomed the criticisms of those important bodies whose interests the deputation represented, and he could assure them that within the limits of the present proposals he personally, and the County Council, would welcome any suggestions for the best possible architectural treatment of a scheme which he was sure would offer great architectural opportunities.

ST. PAUL'S CATHEDRAL PRESERVATION.

A meeting of the Representative Committee of St. Paul's Cathedral was held on 4 December 1929, when the following Report by the Works Committee was adopted :

EIGHTH REPORT BY THE WORKS COMMITTEE OF THE REPRESENTATIVE COMMITTEE.

The work of preservation at St. Paul's Cathedral has main-

tained a steady rate of progress in the period that has elapsed since the last Report dated 14 February 1929 and there is no reason to doubt that the work will be so far advanced that the Cathedral will be ready for re-opening by June next year and for the continuation of the regular Services thereafter.

The repairing of the ashlar facing of the main piers has made considerable progress. Work on the Choir piers is nearing completion and on the other piers has advanced to the level of the main cornice where extensive renovation has been carried out. Good progress has been made with the renewal of defective carving. Nearly 700 corroded iron cramps in the masonry, which have caused so much damage, as explained in the last Report, have been removed. Forty of these were found embedded in the main Corinthian capitals and eighty-eight in the main cornice. These projecting features were urgently in need of repair and were becoming a source of danger. It is satisfactory to report that the removal of the cramps has been carried out without causing local movement of any importance. About 2,000 non-rusting cramps have been inserted.

The organ and its casing have been removed from the temporary position in the nave and are in process of re-erection on the original site. Much of the main structure is up but the erection of the more delicate parts of the mechanism will be left until later when the dust in the Dome Area has been even further reduced. The organ will be available for use at the re-opening.

The galleries and main stalls on either side of the choir have been re-erected and the re-instatement of all the monuments against the main piers has been completed without damage.

During the period from April to the end of October 1929, 217 tons of timber and 120 tons of steelwork used for temporary purposes were taken down and removed from the Cathedral. The removal of the timber has minimised the risk of fire, against which precautions described in previous reports have been constantly maintained. The surplus steelwork has been disposed of on satisfactory terms.

The system of bracing between the inner and outer drums from the level of the Whispering Gallery upwards described in some detail in the last Report, has been completed.

The cementation and reinforcement of the thirty-two buttresses and radial walls have made steady progress, very nearly half of this work having been completed. In order to take advantage of the consolidation of this part of the structure it has been decided to incorporate in the system of non-rusting steel ties to the four bastions a belt to encircle the buttresses at the lowest possible level.

The series of plumbing, linear and theodolite measurements have been carried out at the usual regular intervals with results that are satisfactory in that they call for no remark. In connection with these measurements two sets of readings have been obtained from the new plumbing suspension points on the outside of the Cathedral.

The reading of the crack measurement plugs has been continued at regular monthly intervals throughout the entire Cathedral and the results are much the same as mentioned in the last Report.

Satisfactory progress has been made with the general architectural survey of the Cathedral. Accurate plans at two levels have been completed and a section along the main axial line extending from the top of Ludgate Hill in the west to Old Change in the east is at present being drawn.

The Chapter Clerk will report to the Committee as to the expenditure incurred since the date of the last Report.

WESTMINSTER ABBEY SACRISTY.

The Committee appointed last October by the Dean and Chapter to reconsider the various schemes for the provision of a Sacristy for the Abbey have now published their Report. They have reviewed 14 possible sites which have been suggested, and have dismissed some of them as impracticable, including the mediæval Sacristy site; they have rejected the "Model" site which had been proposed, and have suggested instead that a sacristy should be erected east of the Poet's Corner between the buttresses, where it could be extended if necessary by the use of the Chapter House Crypt, connected by an underground passage, and by an eastward extension underground. This sacristy would be approached easily from the high altar through St. Benedict's Chapel and its ancient doorway, and would not be visible from the street. The Dean and Chapter have agreed to reconsider these proposals.—Abstract from *The Times* report, 16 January 1930.

BRITISH SCHOOL AT ROME.

Proposed Scholarship in Mediæval Studies.

Four years ago the Faculty of Archæology, History and Letters of the British School at Rome founded a Scholarship tenable for two years of the annual value of £150 for competition among young graduates intending to conduct research in some part of the studies with which the Faculty is concerned.

It is the intention of the Faculty, as soon as the financial means are at its disposal, to found a second Scholarship of the same kind as the first, and so to establish an arrangement whereby one of its two Scholarships will be open for competition every year.

If this proves possible, the Faculty proposes to use any new resources that it may obtain for the encouragement of the study of history and art during the Middle Ages. Arrangements will be proceeded with as soon as fresh income is assured, either in the form of annual subscriptions amounting to £150 per annum for not less than two years or by a capital endowment.

Those who are interested in the proposed foundation are invited to communicate with the Secretary, Mr. R. P. Hinks, 50 Bedford Square, London, W.C.1.

Allied Societies

(The attention of Members of the Allied Societies is particularly called to this page)

ESSEX, CAMBRIDGE AND HERTFORDSHIRE SOCIETY OF ARCHITECTS

(CAMBRIDGE CHAPTER).

The ceremony of unveiling the plaque which is to be attached to the "Rose and Crown" building, Newmarket Road and East Road, Cambridge, to commemorate the award of the bronze medal presented by the Royal Institute of British Architects to Mr. Basil Oliver, F.R.I.B.A., for the best building completed in the three counties in 1928, will be performed by the President of the Society, Mr. Wykeham Chancellor, M.A. (Oxon.), F.R.I.B.A., at 3 p.m., on Friday, 31 January 1930, after which guests will be entertained to tea in the Club Room by the proprietors (Messrs. Greene, King and Sons, Ltd.). Guests should assemble in the Club Room not later than 2.55.

WEST YORKSHIRE SOCIETY OF ARCHITECTS.

Mr. G. H. Foggitt presided over a large attendance of members and students at a meeting held at Leeds on 23 January, under the joint auspices of the West Yorkshire Society of Architects and the Leeds College of Art, when an address was given by Mr. G. S. Francis, of London, the subject being "Electric Lighting in relation to Modern Tendencies in Architecture."

In the course of his address Mr. Francis said :—

"My first contact with the pure use of light as a definite feature in an architectural scheme was made when I saw the first Goetheanum near Basle in 1923. Standing on an outlying spur of the Jura, above the little village of Dornach, this building presented a remarkable sight. Apart from its size, which was considerable, it possessed an unusual quality. By all the accepted canons of architectural art, except truth, it stood condemned as fantastic, yet it was truthful in as much as the plan was adapted to its requirements and its elevations were a true expression of the plan. This building was designed by Dr. Rudolf Steiner as a college of Spiritual Science, the scientific investigation of life phenomena. In scale it was colossal, the main dome being larger than that of St. Peter's at Rome. It was not an architect but a Doctor of Philosophy who had given the new pattern. He had become conscious of a new urge in the world and sought to express it architecturally in the form which it suggested to him.

The exterior form of the building, about which I believe there has been some architectural controversy, was after all but the shell for an interior which was even more remarkable in appearance, the interest of its architectural features being enhanced by the play of light and colour directed upon them.

The light used was sunlight and by the special colouring and grouping of windows effects were produced of which I will attempt a verbal description. The main auditorium of the building was a large oval space with wide gangways and seats for over 1,000 persons. This space was surmounted by a large painted dome supported by seven pairs of massive wooden columns. The carving on the bases and capitals of the columns, as well as on the architrave, was done in such a manner that the tool marks were left in the wood, so that when varnished these great wooden surfaces presented a facetted effect.

Entrance to the auditorium was obtained through a vestibule illumined by three large windows of flaming red. Surrounded by the vivid influence of the red, one opened the doors and entered the auditorium to meet the following colour impression. The first pair of columns, brightly illuminated by the brilliant green windows flanking the entrance doors, stood up like shafts of emerald. The next pair of windows were a brilliant blue the light from which, mingling with the green of the first pair, threw upon the second and third pair of columns a shimmering drake's neck effect. The third pair of windows were deep rose in colour and the light from these, mingling with the light from the blue pair, flooded the fourth pair of columns with a deep purple hue. The fourth pair of windows were of pale peach blossom tint so that the fifth, sixth and seventh pairs of columns melted through diminishing shades of violet into the pale amethyst tint thrown by the mingled light from all the windows upon the curtains of the stage which formed the background of the scene.

Unfortunately this building can no longer be seen. It was totally destroyed by fire in 1926, but its creator (Rudolf Steiner) again gave evidence that he possessed the faculty of creative imagination in a remarkable degree, by beginning at once to design the second Goetheaneum on an even larger scale and in still more unusual form. No part of the old design was used in planning the new building, it was an act of deliberate creation instead of repetition. The exterior shell of the second Goetheaneum was completed in October 1928, but work on the interior has hardly yet begun.

A glimpse of certain aspects of building activity in recent years fixes the impression that we have entered an era of creative artistic design. This prospect has been facilitated by modern invention and the use of new materials such as reinforced concrete and the steel frame, but the main impulse really arises from a quickening of artistic impulses expressed in the desire to evolve architectural styles more expressive of this dynamic phase of civilisation.

Since new designs in architecture, decoration and furnishing are now appearing it is only natural that the plastic properties of electric light should also participate in this development, but electric light did not come into its own all at once. Throughout the ages prior to the advent of electric light, all artificial illumination involved the burning of something, pine torches, animal oil, candles, mineral oil and gas. Consequently fittings for light had to be fixed vertically, provision had to be made for the inlet of air and an outlet for the fumes of combustion. They had also to be placed in accessible positions for lighting and extinguishing the flame. Electric lamps came first into use during the Victorian era and we have only to recall decorative ideas of that age, with its antimacassars, stuffed birds, wax fruit, etc., to understand why, when electric light arrived, no attempt was made to depart from the customary form and position of the lighting fittings. In fact, designers of that period often went out of their way to imitate the traditional fittings of the older methods of illumination.

Technical improvements in the lamp itself and the pioneer work of lighting engineers have enormously increased the efficiency of electric light, but to-day a demand arises for beauty as well as efficiency and therefore the new development that is taking place is the result of a kind of triple alliance, the alliance between the artist, the scientist and the engineer.

Thus a renaissance is now visible in the sphere of artificial illumination, a new spirit has entered the field and has already begun to direct the use of electric light into new and attractive channels. Already a departure from convention has been made through the evolution of means to employ electric light in broad masses instead of isolated points while lighting fittings, designed in the modern manner, exhibit in an interesting fashion the growing feeling for the artistic properties of the line, the angle and the plane.

Modern feeling for architectural form is undergoing a metamorphosis. This is shown by the changing style of buildings. Changes in exterior form must be balanced by suitable interior arrangements. Lighting fittings must be designed, and the disposition of light arranged to harmonise with the general design and spirit of the structure. Older forms of electric fittings, especially those that remain as a heritage from the age of candles and gas, are obsolete in a modern setting.

Interior and exterior artificial lighting is becoming of increasing importance as elements in architectural design. Casual examples of cornice, window and skylight illumination have been known for ten years or more but the real stimulus towards bolder and more consistent developments of decorative lighting probably dates from the Paris Exhibition in 1925.

A significant feature of this development is its bold departure from the use of points of high intensity to the employment of larger masses of low intensity light as a groundwork upon which higher light values can be used in accord with the designer's plan. With this appears also a marked restraint in the use of ornament, and closer attention to the texture and colour of the transmitting medium.

Another feature lies in the evolution of housing units for the lamps which can be incorporated into the structure of the building in the form of ceiling or wall panels, luminous cornices, lintels, columns, etc., other effects can be obtained by reflection, by diffusion through some translucent material, by a combination of both with added elements of direct lighting placed at strategic points to give emphasis to desired features.

Lighting development of this nature is yet in its infancy. Some forms will probably fail to meet the taste of the age and will fall by the wayside, but others will develop on lines that possess survival value and will live on through progressive metamorphosis until true artistic expression is achieved."

The lecturer showed a number of lantern slides illustrating his remarks on both exterior and interior illumination, and in reply to queries, said that the flood-lighting of a large building in the London district cost no more than two shillings per hour.

Mr. H. G. Foggitt moved the vote of thanks, which was seconded by Mr. J. Addison.

NEW FORM OF CONTRACT.*

Important Developments.

We have had many inquiries about the new Form of Contract, and in replying individually we have explained that we have not been able to make any public pronouncement pending the issue of certain comprehensive memoranda which the National Federation of Building Employers have had in preparation. We have now had the opportunity of perusing these, the issue of which will be suspended for the time being, and some of which may never be issued at all. We have formed the opinion that some of them are of interest only to contractors, whilst some should be of great use to all concerned.

There would be placed within the latter category an annotation of the new form arranged in such a way as to include comprehensive and explanatory notes to follow each of the clauses of the Conditions of Contract. This annotation carefully prepared by Counsel, should have more extensive use than is at present contemplated.

We have closely examined the notes and observations as made by Counsel and find that in the explanations which they convey of the changes made from the 1909 Form the annotation is most helpful. Even if no further agreement had been contemplated between the parties concerned, we should have expressed the view that this document should be made available to all as early as possible.

The impression that has been created upon our mind in reading the annotation is that the material changes from the old Form are comparatively few, and, with respect to the judgment of those by whom the new Form was prepared, we feel quite sure that there are already good grounds for the modification of the document to meet most of the objections which we have heard expressed from the architects' point of view.

We believe, however, that it is well within the bounds of probability that a further agreement between parties will be effected. This belief is expressed mainly because it is felt that there should be agreement and that there should not be allowed to endure any points of difference which are capable of friendly settlement. It is greatly strengthened at the present time, however, on account of the hope and expectation which have been expressed of parties coming together again for further conference at an early date.

At this season especially, it is a pleasure to record that representative architects and contractors have had informal conferences with a view to finding some means of reconciling conflicting views. To this end the Building Contractors have taken initiatory steps by way of communicating with the Royal Institute of British Architects.

Therein they have suggested that a Joint Tribunal or Board of Conciliation should be set up to whom should be entrusted the duty of reviewing the whole document and introducing such amendments as may be necessary to make it conform with the best modern practice and to meet so far as possible any objections that may be raised or found in actual practice.

Whilst this Joint Body would, in the first instance, devote themselves exclusively to questions relating to the Form of Contract, it is anticipated that their functions might most usefully be extended to the task of resolving many other difficulties that may arise from time to time, and for which their alternative title of Board of Conciliation may prove to be most appropriate.

If representatives of the parties concerned agree to meet in the same spirit as has animated those who have already conferred informally, we are satisfied that it will soon be found that all reasonable views with regard to the new Form of Contract will be met, and that there will result an improved Form which contracting parties can accept with confidence either in full if conditions are normal or as a basis of their contract agreement in cases where conditions are in any way exceptional.

It is satisfactory to know that the Building Contractors have suspended the issue of instructions to their members with regard to the use of the New Form in order that such conferences as may result from the overtures they have made shall proceed without embarrassing difficulties occurring. They have not specifically asked the architects similarly to suspend any activities, as they will feel well assured that the architects will similarly refrain from advice or instruction to their members which might reasonably result in embarrassment during the period of negotiations.

It is confidently felt that the Royal Institute of British Architects will accept the suggestion of the contractors and that thereby they will have advanced matters considerably towards the desired end of peace and progress in the building industry.

We think that contractors may well exercise further patience, and that, whatever may be the result of the overtures that have now been made, all concerned in the well-being of the industry will thank those disinterested representatives upon both sides for their efforts to open up another and brighter phase of these long negotiations.

* Extract from *The National Builder*, January 1930.

ELECTION OF STUDENTS, R.I.B.A.

The following were elected as Students at the meeting of the Council held on 6 January 1930 :—

Anderson : Alexander Robert Fordyce, c o The Architectural Association, 34 Bedford Square, W.C.1.

Aspinall : Charles Edmund, 2 Kirkstall Avenue, Marton, Blackpool.

Banister : Harry, " Edgbaston," Crosby Road South, Seaforth, Liverpool.

Barker : Cecil Frederick, Parkside, Park Road, Hanley, Staffs.

Bath : Charles George, 6 Railway View, Blackpool, S.S.

Bedford : Eric, 10 Ashwell Road, Heaton, Bradford, Yorks.

BICKNELL : PETER, 36 Edith Road, London, W.14.
BIRKS : THEODORE HERZL, 108 Bignor Street, Hightown, Manchester.
BLADES : BEATRICE AGNES, 13 Buckleigh Road, Streatham, S.W.16.
BOWMAN : FREDERICK, Station Lane End, Pelton, Co. Durham.
BRICE : CASTLEDINE KEMPTON, " Trefula," St. Thomas, Swansea.
BROADWATER : HERBERT JAMES WILLIAM, 7 Andrews Road, Hackney, E.8.
CATCHPOLE : JACK, 69 Henley Road, Ipswich, Suffolk.
CAVEN : CHARLES ALEC, 102 Ombersley Road, Balsall Heath, Birmingham.
CHAPMAN : REGINALD CHARLES, " Monksdene," Sutton, Surrey.
COCKBAIN : WILLIAM NORMAN, 31 Middlesex Road, Bootle, Liverpool.
DICKINSON : SIDNEY NAYLOR, 67 Bedford Road, Clapham, S.W.4.
DOCTOR : BHICAJI EDULJI, c o The Architectural Association, 34 Bedford Square, W.C.1.
EDMONDS : REGINALD, 12 Amesbury Road, Moseley, Birmingham.
ELLIS : HAROLD HARPER, 1 Beauchamp Road, E. Molesey, Surrey.
FAIRWEATHER : GEORGE, 23 St. Nicholas Road, Trinity Road, Balham, S.W.17.
FORSYTH : JOHN MORRIS, 24 The Park, London, N.W.11.
GERRARD : PHILIP, 21 Leonard Avenue, Sherwood, Nottingham.
HANCOCK : SYDNEY CHARLES, 26 Dovedale Road, E. Dulwich, S.E.22.
HANNAM : FRANCIS LAMBSON, 346 Brixton Road, London, S.W.9.
HOWARD : WILLIAM FREDERICK, 88 Guilford Street, London, W.C.1.
JOHNSON : FREDERICK, 6 St. John's Street, Bury St. Edmunds.
KELSEY : ALFRED EDWARD, 40 Radnor Terrace, London, S.W.8.
LOCK : CECIL MAX, Queen's Walk, Cassiobury, Watford, Herts.
MARSHALL : ALAN JOHN RICHARD, " Littlecroft," Long Moor, Long Eaton, near Notts.
MARSTON : WINSTON EWART, 58 Vaughan Street, Coalville, near Leicester.
MASSIE : DAVID MEARNS, 11 Cleveleys Grove, Higher Broughton, Manchester.
MAY : REGINALD JOHN, 6 Marine Parade, Southend-on-Sea, Essex.
MEREDITH : HAROLD EDWARDS, Fir Tree House, Staple Hill, near Bristol.
MITCHELL : TOM NOEL, 118 Bolton Street, Blackpool, S.S.
MOORE : JOHN ROBERT, c o Borough Engineers Department, Town Hall, Accrington, Lancs.
PHILLIPS : FRANCIS HARRY EDWARD, 9 Sylvan Hill, Upper Norwood, S.E.19.
PRATT : ARTHUR RONALD, 3 Torrington Square, London, W.C.1.
PYNE : ALBERT SIDNEY, 2 Hartland Road, Queens Park, N.W.6.
REEVE : CECIL EDWARD, 62 Warwick Square, London, S.W.1.
SALTER : EDWARD THOMAS, 33 Roderick Road, Hampstead, N.W.3.
SHACKLETON : JOHN, " Moorcroft," Park Road, Littleborough, near Manchester.
SMITH : ARTHUR CHESTER, " Lustleigh," 124 May Place Road, Bexley Heath, Kent.
SMITH : ERIC SYDNEY, 28 Killarney Road, Wandsworth Common, S.W.18.
SMITH : WILLIAM JOHN, 9 Mayhill Road, Charlton, S.E.7.
SNOW : HARRY ALEXANDER, " Grafton," Powderham Road, Newton Abbot.
STARK : DOUGLAS ROGERS, " Pitchcroft," Grove Park, Wanstead, E.11.
STEWART : DONALD ARTHUR, 71 Commercial Road, Portsmouth.
STORRY : EDWIN JOHN, 47 Thorne Road, Doncaster.
THOMPSON : BENJAMIN HAROLD, " Burderop," near Swindon, Wilts.
THORNLEY : HARRY, " Wimereux," Seafield Road, Blackpool, N.S.
TIPLING : ARTHUR RAYMOND, 15 Henty Road, Worthing, Sussex.
TODD, GEORGE RICHARD, 68 Hucknall Road, Nottingham.
WESTCOTT : JOHN SHORLAND, Moseley Lodge, Cheadle, Cheshire.
WESTMORELAND : CHARLES EDWARD, 66 Worple Road, Wimbledon, S.W.19.
WHITEHEAD : FRANK, 12 Granville Street, Berry Hill, Heckmondwike, Yorkshire.
WILCOCKSON : IAN DOUGLAS, 12 Tennyson Avenue, Chesterfield.
WINWARD : FRED, 135 Wigan Road, Westhoughton, near Bolton, Lancs.
WRINCH : BERIS, 16 Museum Street, Ipswich.

R.I.B.A. PROBATIONERS.

During the month of December 1929 the following were registered as Probationers of the Royal Institute :—

BOZIER : GEORGE ALFRED, 96 Shorndean Street, Catford, S.E.6.
BRIGHT : GEOFFREY NEWNHAM, " Somersby," Oundle Drive, Wollaton Park, Notts.
COUVES : DUDLEY LEONARD, " The Buggiss," North Avenue, Gosforth, Newcastle-on-Tyne.
CUNLIFFE : IAN FREDERICK, 17 Woodland's Avenue, Ribbleton, Preston, Lancs.
DICKERS : VERA GWENDOLINE, 32 Bolton Street, Brixham, S. Devon.
DRINKWATER : NORMAN, 74 Ryelands Street, Hereford.
FYSH : GILBERT ROY, 629 Leeds Road, Bradford, Yorks.
GILLIS : CYRIL, 33 Belle Vue Park, Sunderland, Co. Durham.
GOVAN : HORACE ARTHUR RENDEL, 35 Comely Bank, Edinburgh.
HAM : ARTHUR JOHN LAWRENCE, Tetton Gate, Kingston, Taunton.
HEMMINGS : WILLIAM JAMES, 50 Shakespeare Street, Leicester.
HOOD : ANDREW STEWART, 142 High Street, Tranent, East Lothian, Scotland.
HOPKINS : WILLIAM ALBERT LARCHER, 8 Melrose Avenue, Reading.
LASBURY : FRANCIS PERCY, " Guyscliffe," Minchinhampton, near Stroud, Glos.
REIACH : ALAN, 9 Grange Loan Gardens, Edinburgh.
SELBY : LAWRENCE JOHN, 1 Lindisfarne Avenue, Leigh-on-Sea, Essex.
STARK : DOUGLAS ROGERS, " Pitchcroft," Grove Park, Wanstead, E.11.
STEPHEN : KENNETH LESLIE, 78 Comiston Road, Edinburgh.
STONEHAM : JOHN YORKEE, THOMPSON, Bookham Lodge, Cobham, Surrey.
TURNER : ERIC HENRY, 33 Melton Road, W. Bridgford, Notts.
WELLS : GEOFFREY ROBERT, " Old Farm," Weston, Ringsfield, Beccles, Suffolk.
WESTCOTT : JOHN SHORLAND, Moseley Lodge, Cheadle, Cheshire.
WISE : ARTHUR GEORGE, " Greenways," Dunheved Road, Launceston, Cornwall.

ROYAL ACADEMY OF ARTS.
ARCHITECTURAL EXHIBITS 1930.

A notice was published in the JOURNAL for 10 August 1929, to the effect that it had been decided that for the Royal Academy Summer Exhibition of 1930, the Architectural exhibits of Members would be limited to geometrical drawings not exceeding ½ inch scale, and that preference would be given to such drawings submitted by non-members.

It has now been ascertained that the *preference* which is to be given to geometrical drawings, will cover normal working drawings; elevations, plans and sections rendered in water-colour, etc., if geometrical, but not isometric drawings.

Examinations

R.I.B.A. FINAL EXAMINATION, INDIA.

The R.I.B.A. Examination Board in India have arranged to hold the R.I.B.A. Final Examination in Bombay from the 2nd to 9th April 1930. The last day for receiving applications, which should be sent to the Secretary of the R.I.B.A. Examination Board in India, 43, Apollo Street, Fort, Bombay, is March 3rd.

R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the Office of District Surveyor under the London Building Acts, and the Examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May, 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

R.I.B.A. EXAMINATIONS, NOVEMBER AND DECEMBER 1929.

The questions set at the Intermediate, Final and Special Examinations, held in November and December 1929, have been published, and are on sale at the Royal Institute, price 1s. (exclusive of postage).

Notices

SPECIAL AND BUSINESS GENERAL MEETINGS. 3 FEBRUARY 1930.

A Special General Meeting will be held on Monday, 3 February 1930, at 8 p.m. for the following purposes :—

To read the minutes of the Special General Meeting held on 18 March 1929.

To elect the Royal Gold Medallist for the current year. The Chairman to move :—

> "That subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of architecture be presented this year to Mr. Percy Scott Worthington, M.A. Oxon., Litt.D., F.S.A. [*F.*], in recognition of the merit of his work as an architect."

THE SEVENTH GENERAL MEETING.

The Seventh General Meeting (Business) of the Session 1929–30 will be held on Monday, 3 February 1930, at the conclusion of the Special General Meeting, for the following purposes :—

To read the Minutes of the General Meeting (Ordinary) held on Monday, 20 January 1930; formally to admit members attending for the first time since their election.

To proceed with the election of the candidates whose names were published in the Journal for 11 January 1930 (pp. 177–8).

To announce the names of candidates nominated by the Council for election to the various classes of membership.

INFORMAL DISCUSSION OF MATTERS OF PROFESSIONAL INTEREST.

At the conclusion of the above business meeting, there will be an informal and private discussion of matters of current professional interest or concern. Members are invited to bring up for discussion, with or without notice, subjects of professional interest or difficulty.

ELECTION OF MEMBERS, 16 JUNE 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 16 June 1930 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 8 March 1930.

LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (*b*) and (*cii*) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

THE NATIONAL ASSOCIATION OF WATER USERS.

Members are reminded that the National Association of Water Users, on which the R.I.B.A. is represented, exists for the purpose of protecting the interests of consumers. Members who experience difficulties with water companies, etc., in connection with fittings are recommended to seek the advice of the Association. The address of the Association is 46 Cannon Street, London, E.C.4.

EXHIBITION IN THE R.I.B.A. GALLERIES.

The original Isometric drawing, showing the construction of St. Paul's Cathedral, measured and drawn by Mr. R. B. Brook-Greaves, in collaboration with Mr. W. Godfrey Allen and with the assistance of Mr. Matthew Dawson, F.R.I.B.A. and Mr. E. J. Bolwell, will be on exhibition in the R.I.B.A. East Gallery from Monday, 27 January to Saturday, 8 February, both dates inclusive. The Exhibition will be open between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.).

The drawing is of great educative value, and members and students are urged to take an early opportunity of inspecting it. Reproductions can be obtained on application to the Secretary R.I.B.A. price £1 10s. 6d. each.

Competitions

ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [*F.*].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

CLYDEBANK: WAR MEMORIAL.

The Clydebank Town Council are inviting the submission of designs for the erection of a cenotaph as part of the war memorial. Further particulars and conditions may be obtained on application to the Town Clerk, Municipal Buildings, Clydebank.

Conditions have not yet been received.

GOSPORT: PLEASURE RESORT AND GROUNDS.

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

KING'S LYNN: PROPOSED NEW SCHOOL.

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

ONGAR: COTTAGE HOSPITAL.

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

PLYMOUTH: SUNDAY SCHOOL, FIRST CHURCH OF CHRIST SCIENTIST.

The Competitions Committee desire to call the attention of Members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the Promoters in the hope of securing an amendment. In the meantime Members should not take part in the competition.

Members' Column

MESSRS. MAYELL AND COLE.

Mr. A. Y. Mayell [*L.*], formerly practising as Hukins and Mayell, has taken into partnership Mr. L. E. Cole [*A.*]. The practice will be carried on under the title of Mayell and Cole.

CHANGE OF ADDRESS.

Mr. John W. Wilson, F.R.I.B.A., A.M.T.P.I., has moved to more convenient offices at No. 30 Waterloo Street, Birmingham. Telephone: Central 1196.

COLLABORATION WANTED.

A gentleman of middle age, quietly practising in West End and highly experienced, seeks opportunity of discussing the merits of an association with a senior or firm willing to afford a wider aspect for the writer's ambition and necessity to do far more work.—Reply Box 8082, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP WANTED.

A.R.I.B.A., young, experienced and enthusiastic, requires partnership in well-established practice, Southern district. Some capital available.—Reply Box 1130, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ASSISTANCE OFFERED.

Associate practising in West End wishing to extend present practice, would welcome opportunity to give assistance to other architects or surveyors in any branch of practice. Phone: Gerrard 6117, or apply Box 2897, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

FOR SALE.

Dictionnaire Raisonné de l'Architecture française du XIe au XVIe siècle. 10 vols. 1858–68. Also *Dictionnaire Raisonné du Mobilier français.* 6 vols., 1868–75. Both works by M. Viollet-le-Duc. 16 volumes uniformly bound in handsome brown Morocco boards, perfect condition. For further particulars apply Box 0391, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

Minutes VI

SESSION 1929–1930.

At the Sixth General Meeting (Ordinary) of the Session, 1929—1930, held on Monday, 20 January 1930, at 8.30 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 26 Fellows (including 12 members of Council), 26 Associates (including 4 Members of Council), 5 Licentiates, and a very large number of visitors.

The Minutes of the General Meeting held on 6 January 1930, having been published in the Journal, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

Sir Lawrence Weaver, K.B.E., F.S.A., elected Hon. Associate 1910.

and it was Resolved that the regrets of the Institute for his loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to his relatives.

The following members attending for the first time since their election were formally admitted by the President:—

Mr. William Crabtree [*A.*].
Mr. Clifford E. Culpin [*A.*].
Mr. W. A. Eden [*A.*].
Mr. Alex J. Lowes [*A.*].
Mr. W. B. Mowbray [*A.*].

The President having delivered his address to students, a vote of thanks was passed to him by acclamation on the motion of the Rt. Hon. Viscount Burnham, G.C.M.G., C.H. [Hon. *F.*], seconded by Sir William Llewellyn, K.C.V.O., P.R.A., and supported by the Rt. Hon. George Lansbury, M.P., H.M. First Commissioner of Works.

Mr. W. H. Ansell, M.C. [*F.*], read a review of the works submitted for the Prizes and Studentships 1930 and illustrated it by lantern slides. On the motion of the President, a vote of thanks was passed to Mr. Ansell by acclamation.

The Presentation of Prizes was then made by the President in accordance with the award, as follows:—

The R.I.B.A. Tite Prize: A Certificate and £50:—The

Prize was awarded to: Mr. Arthur Charles Collins of Melbourne, Australia, and the Certificate has been despatched to Australia for presentation to Mr. Collins at a Meeting of the Royal Victorian Institute of Architects. Certificates of Hon. Mention to: (1) Mr. Eric Francis Stacy (Department of Architecture, Northern Polytechnic); (2) Mr. Harry Banister (The Liverpool School of Architecture, University of Liverpool); (3) Mr. Eric Frank Starling (School of Architecture, University of London).

The Soane Medallion and £150 :—The Soane Silver Medal to: Mr. John Leslie Martin (School of Architecture, Victoria University, Manchester). Certificate of Honourable Mention to: Mr. Sidney Edward Thomas Cusdin (Architectural Association, London).

The Owen Jones Travelling Studentship: A Certificate and £100 :—The Owen Jones Certificate to: Miss Kathleen Anne Veitch (Architectural Association, London).

The Royal Institute Silver Medal and £75 for Measured Drawings :—The Silver Medal and Cheque for £75 to: Miss Sadie Speight (School of Architecture, Victoria University, Manchester).

The Royal Institute Silver Medal and £50 for an Essay :—The Silver Medal and Cheque for £50 to: Mr. Ronald Aver Duncan [*A.*] (Architectural Association, London). Certificate of Honourable Mention to: Mr. William Arthur Eden [*A.*] (School of Architecture, University of Liverpool).

The Henry Saxon Snell Prize: A Certificate and £100 :—(Offered jointly by the R.I.B.A. and the A.A.) The Henry Saxon Snell Certificate to: Mr. Kenmuir Harry Read [*A.*].

The R.I.B.A. (Alfred Bossom) Travelling Studentship :—Silver Medals to: (1) Mr. Edward Forster [*A.*], (School of Architecture, University of London). (2) Mr. Harold Bertram Rowe [*A.*].

The R.I.B.A. Hunt Bursary: A Certificate and £50 :—The Hunt Certificate to: Mr. Trevor Mervyn Daniel [*A.*], (School of Architecture, University of Cambridge).

The R.I.B.A. Neale Bursary: A Certificate and £70 :—The Neale Certificate to: Mr. William Arthur Smith Cormack [*A.*] (School of Architecture, Robert Gordon's Colleges, Aberdeen).

The R.I.B.A. Ashpitel Prize 1929: Books to the value of £10 to: Mr. Ralph Herbert Brentnall (Royal West of England Academy, Bristol, School of Architecture).

The R.I.B.A. Silver Medal for Students of Schools of Architecture Recognised for Exemption from the Final Examination :—The Silver Medal to: Mr. John Leslie Martin (School of Architecture, Victoria University, Manchester). Certificate of Honourable Mention to: Mr. William Crabtree [*A.*] (The Liverpool School of Architecture, University of Liverpool).

The R.I.B.A. Bronze Medal and Books to the Value of £5 for Students of Schools of Architecture Recognised for Exemption from the Intermediate Examination :—Mr. Alexander George Gibson (Architectural Association, London).

The President introduced to the Meeting the successful Candidates for the following Studentships and Prizes awarded during the year 1929, and presented them with Certificates :—

The R.I.B.A. (Archibald Dawnay) Scholarships. (To encourage the Study of Construction and use of Materials.) Certificates to: Mr. Francis James Massey Ormrod (The Liverpool School of Architecture, University of Liverpool). Mr. John Paley Ward (The Welsh School of Architecture).

The R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association. (To encourage the Study of Construction.) Certificate to: Mr. Guy Reginald Linfield.

The R.I.B.A. (Howard Colls) Studentship at the Architectural Association. (Awarded to a Student in the first year of the School Course.) Certificate to: Mr. Ferguson Sprott.

The R.I.B.A. (Donaldson) Silver Medal at the Bartlett School of Architecture (University of London). (Awarded to the Student who obtains the first place in the Architectural Classes.) Certificate to: Miss Annie Elizabeth Hall.

The R.I.B.A. Maintenance Scholarship in Architecture. (To enable promising students to attend one of the Schools of Architecture Recognised for Exemption from the R.I.B.A. Examinations). Certificate to: Mr. Gavin Graham Laidler (Architectural Association School of Architecture).

The proceedings closed at 10.20 p.m.

ARCHITECTS' BENEVOLENT SOCIETY

(*Insurance Department*).

HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms :—

AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66⅔ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

RATE OF INTEREST, 5½ per cent. gross.

REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the *earlier death* of the borrower.

SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

R.I.B.A. JOURNAL.

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